

FORGES BLOWERS DRILLS



CANEDY-OTTO M'FG CO.

CHICAGO HEIGHTS, ILL.

DESCRIPTIVE PRICE LIST

No. 8

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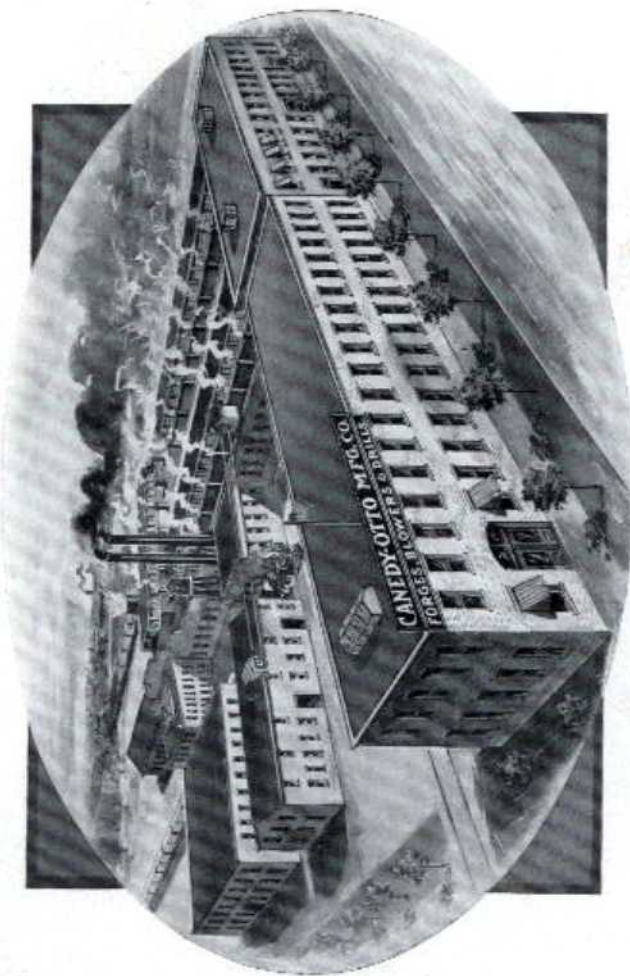
For Repair Lists of above, see back of book.

MADE BY

CANEDY-OTTO M'F'G CO.

CHICAGO HEIGHTS, ILL.

WHERE IT IS ALL MADE



FACTORIES

Canedy-Otto Manufacturing Co.

CHICAGO HEIGHTS
ILLINOIS

To be Brief:

IN this our Eighth Price List, we again present the World's best line of Forges, Blowers and Drills.

NOISE is not always business; hence we only take occasion to say that,

FORGES, BLOWERS AND DRILLS are a specialty with us and not a side issue.

Quality is the true test of cheapness.
Merit is the basis of our success.

Yours Briefly,

CANEDY-OTTO M'F'G CO.

Now, please read pages 45, 65 and 92.

WE ARE FREQUENTLY ASKED
Which Style of Forge ?
or Blower is the Best

This question the user
must himself answer.
It is simply whether he
prefers to "pump a
lever" or "turn a crank"

THEY ARE ALL THE BEST.
We have a habit of furnishing
:: :: ONLY THE BEST :: ::

THE HEARTH

of Royal and Western Chief
Forges 1, 99, 100, 200 and AA.

Showing Solid Heavy Fire-pot, Side and Center Blast
Tuyere Ball. All separate from Hearth.
No Clay necessary.

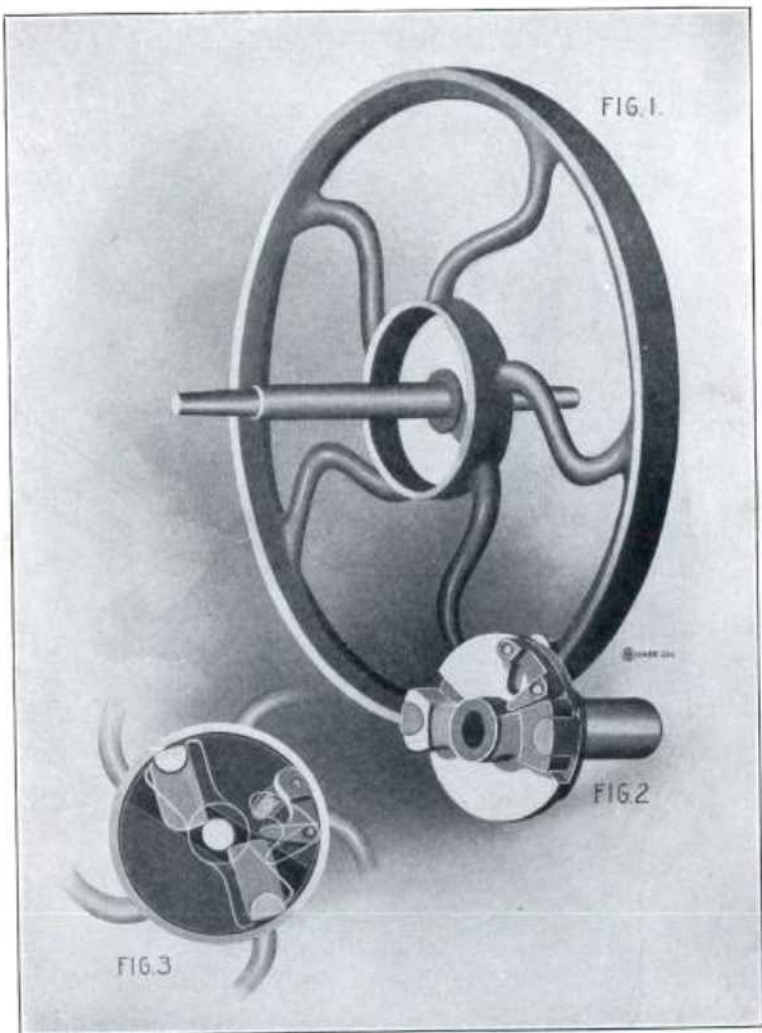


NO OTHER FORGE IS BUILT LIKE THIS.

BACKSTROM'S CLUTCH

(Patented June 19, 1900.)

A NOISELESS ADJUSTABLE FRICTION CLUTCH.



Used on all Western Chief and Hero Forges and Western Chief Blowers that have Lever Movement.
(Description on opposite page.)

BACKSTROM'S CLUTCH

IS USED ON ALL

Western Chief and Hero Forges and Western Chief Blowers

THAT HAVE LEVER MOVEMENT

Fig. 1. Represents the fly-wheel of Forge or Blower, in the hub rim of which the clutch works.

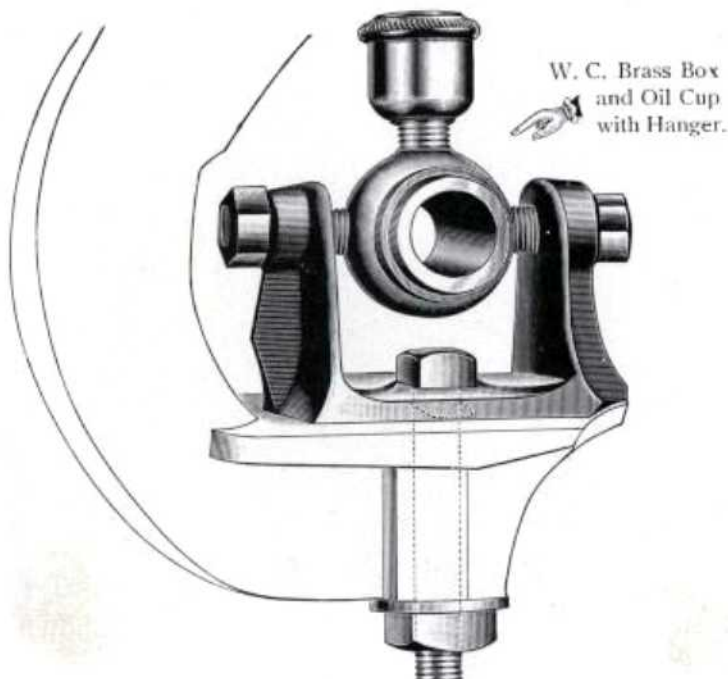
Fig. 2. Is a plain view of clutch, with all parts properly assembled, ready to insert into hub of fly-wheel. *It can not slip.*

Fig. 3. Shows the manner in which the clutch is adjustable. By simply loosening the set-screw in slotted hole and moving it in direction shown, *the diameter of clutch is correspondingly increased.* This feature permits the clutch to be perfectly fitted to hub rim of wheel, and also provides means for instantly taking up any wear which might occur.

An Everlasting Mechanism

A NOISELESS, ADJUSTABLE FRICTION CLUTCH

W. C. Brass Box and Hanger



The above is a view of the Brass Boxes and Oil Cups as used on "Western Chief" Forges and Blowers; showing also the Hanger in which they are supported by means of set-screws with jam-nuts. The hanger is adjustable; and the hole in the box is tapered, as is also the end of shaft which enters it, so that any wear which might occur in them is readily taken up by simply loosening the bolt and setting the hanger and box farther in. The box oscillates on its bearings, adjusting itself to the line of the shaft, thereby making it impossible for the shaft to bind or run hard.

ROYAL (Steel) FORGES

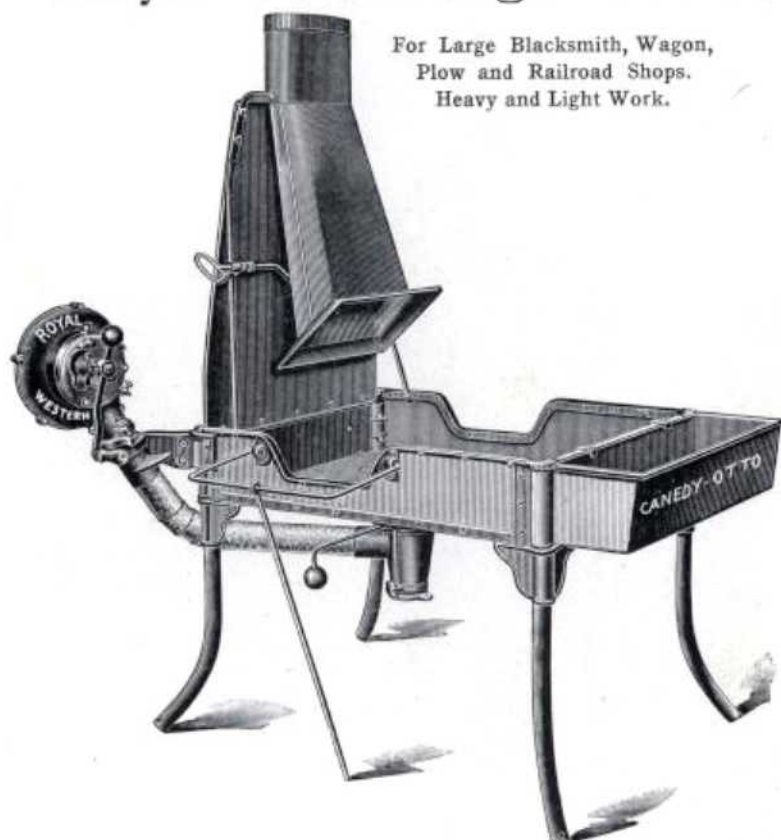
Pages 10 to 23

(Repair List in Back of Book)

Forges under this name have STEEL Hearths, with
Royal Blower Attachment—Crank Movement only.

Royal (Steel) Forge No. 10

For Large Blacksmith, Wagon,
Plow and Railroad Shops.
Heavy and Light Work.



Fan, 12 inches.

Hearth, 30 x 40 inches.

Height, 30 inches.

Length over all, 48 inches.

Crank Turns Forward or Backward.

Capacity to Heat 4-inch Iron.

In this Forge we combine our "Royal" style of Blower, with Steel Hearth, having Solid Fire-pot with Tuyere Ball furnishing side and center blast. For transportation, it can be easily and quickly taken apart, and all parts packed in its own Hearth, which forms a strong shipping case. See page 15.

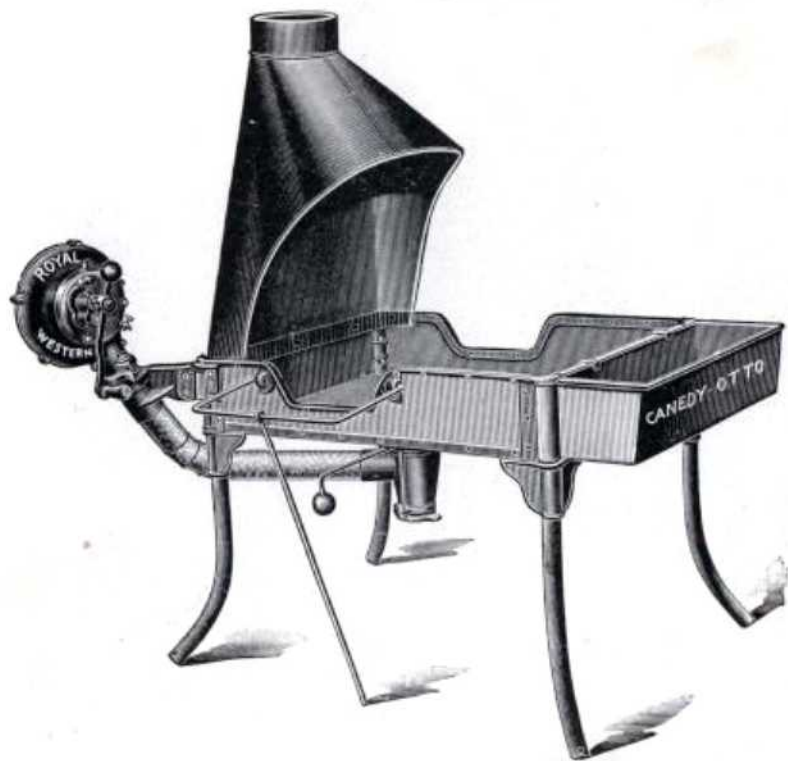
PRICE { Without Tank, weight, 225 lbs. . . . \$70.00
With Tank (as illustrated), weight, 255 lbs. 75.00

(Always shipped WITHOUT TANK, unless so ordered.)

FOR LIST OF REPAIRS, SEE PAGE 111.

Royal (Steel) Forge No. 15

For Blacksmith, Wagon and Plow Shops, Etc.
Heavy and Light Work.



Fan, 12 inches.

Hearth, 30 x 40 inches.

Height, 30 inches.

Length over all, 48 inches.

Crank Turns Forward or Backward.

Capacity to heat 4-inch iron.

In this Forge we combine our "Royal" style of Blower, with Steel Hearth, having Solid Fire-pot with Tuyere Ball furnishing side and center blast.

PRICE {	Without Tank, weight, 215 lbs.	\$65.00
	With Tank (as illustrated), weight, 245 lbs.	70.00

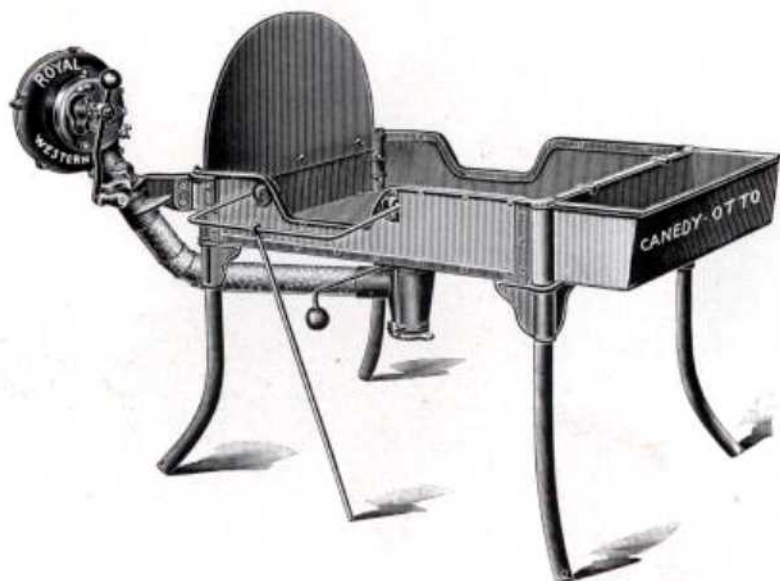
(Always shipped WITHOUT TANK, unless so ordered.)

FOR LIST OF REPAIRS, SEE PAGE 111.

Royal (Steel) Forge No. 20

For Outdoor Construction and Contract Work.

Light or Heavy.



Fan, 12 inches.

Hearth, 30 x 36 inches.

Height, 30 inches.

Length over all, 44 inches.

Crank Turns Forward or Backward.

Capacity to heat 4-inch Iron.

In this Forge we combine our "Royal" style of Blower, with Steel Hearth, having Solid Fire-pot, with Tuyere Ball furnishing side and center blast. For transportation, it can be easily and quickly taken apart and all parts packed in its own Hearth, which forms a strong shipping case. See page 15.

PRICE	{ Without Tank, weight, 190 lbs.	\$58.00
	{ With Tank (as illustrated), weight, 220 lbs.	63.00

(Always shipped WITHOUT TANK, unless so ordered.)

FOR LIST OF REPAIRS, SEE PAGE 111.

Royal (Steel) Forge No. 30

For Horseshoers, Repair Shops,
Boilermakers, Etc.



Fan, 12 inches.
Height, 30 inches.
Hearth, 30 x 36 inches.
Length over all, 44 inches.

Crank Turns Forward or Backward.
Capacity to heat 4-inch Iron.

In this Forge we combine our "Royal" style of Blower, with Steel Hearth, having Solid Fire-pot with Tuyere Ball furnishing side and center blast. For transportation, it can be easily and quickly taken apart and all parts packed in its own Hearth, which forms a strong shipping case. See page 15.

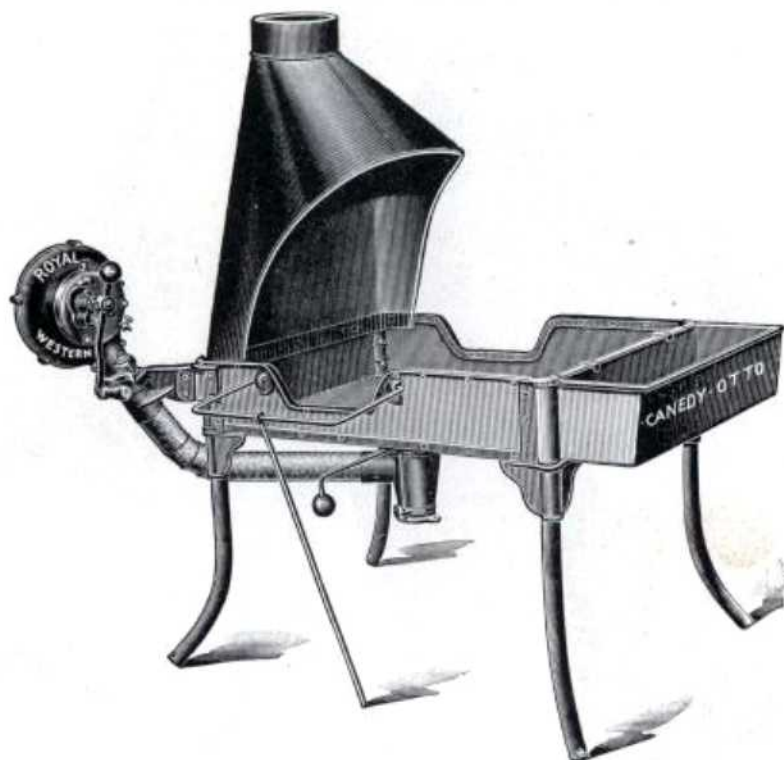
PRICE { Without Tank, weight, 200 lbs. . . . \$65.00
 { With Tank (as illustrated), weight, 230 lbs. 70.00

(Always shipped WITHOUT TANK, unless so ordered.)

FOR LIST OF REPAIRS, SEE PAGE 111.

Royal (Steel) Forge No. 35

For Horseshoers, Boilermakers, Repair Shops, Etc.



Fan, 12 inches.
Hearth, 30 x 36 inches.

Height, 30 inches.
Length over all, 44 inches.

Crank Turns Forward or Backward.
Capacity to heat 4-inch Iron.

In this Forge we combine our "Royal" style of Blower, with Steel Hearth, having Solid Fire-pot with Tuyere Ball furnishing side and center blast.

PRICE {	Without Tank weight, 195 lbs.	\$60.00
	With Tank (as illustrated), weight, 225 lbs.	65.00

(Always shipped WITHOUT TANK, unless so ordered.)

FOR LIST OF REPAIRS, SEE PAGE 111.

A Convenient Way to Transport When Necessary



The above illustration shows manner in which Royal Steel Forges Nos. 10, 20 and 30 (shown on pages 10, 12 and 13) can be packed for shipment if desired, all parts being placed inside its own hearth. A very convenient method, takes but little space and everything protected against loss or breakage.



Royal Western Chief Smoke Conveyor

(Patented)

This new improvement has met with great success. It can be adjusted forward or backward as required, and is preferred by many.

It is furnished with Royal Western Chief Forges Nos. 10, 30 and 200.

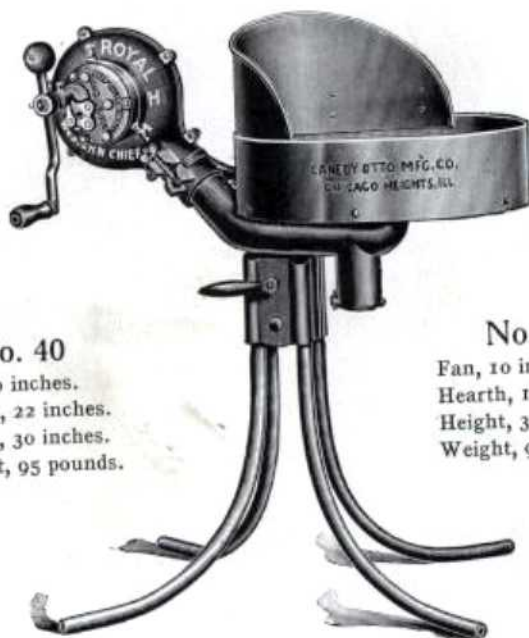
(See pages 10, 13 and 25.)

LIST PRICE \$10.00

(Subject to same discount as on Royal Forges.)

Royal (Steel) Forges Nos. 40 and 60

For Boilermakers, Rivet Work, Mines, Quarries,
Armies, Navies, Etc.



No. 40

Fan, 10 inches.
Hearth, 22 inches.
Height, 30 inches.
Weight, 95 pounds.

No. 60

Fan, 10 inches.
Hearth, 18 inches.
Height, 30 inches.
Weight, 90 pounds.

Crank Turns Forward or Backward.
Capacity to heat 3½-inch iron.

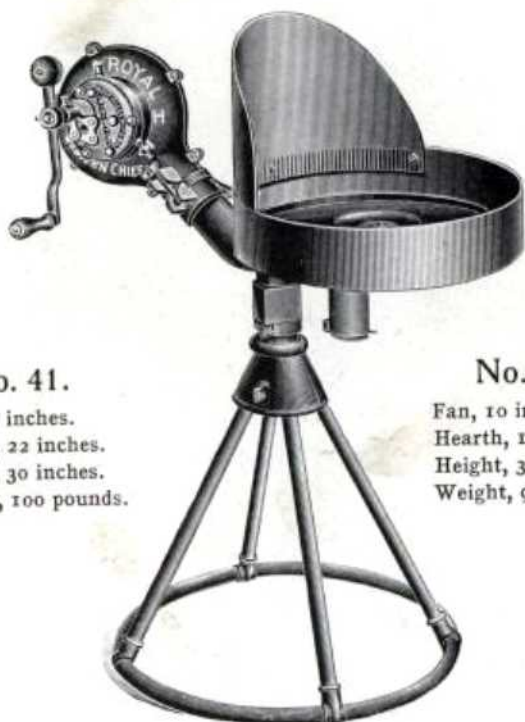
These Forges are high-grade and first-class, and can be quickly knocked down and packed in a box 22 x 24 x 9 inches. The best Army and Navy Forge made.

PRICE {	No. 40	\$40.00
	No. 60	35.00

FOR LIST OF REPAIRS, SEE PAGE 111.

Royal (Steel) Forges Nos. 41 and 61

For Elevated Railway, Buildings, High-up Construction
and Trestle Work, Etc.



No. 41.

Fan, 10 inches.
Hearth, 22 inches.
Height, 30 inches.
Weight, 100 pounds.

No. 61.

Fan, 10 inches.
Hearth, 18 inches.
Height, 30 inches.
Weight, 95 pounds.

Crank Turns Forward or Backward.
Capacity to heat $3\frac{1}{2}$ -inch iron.

The Ring Base on these Forges permits their use on bridges and high-up places, where it is difficult to place a Forge that has legs only. They are easily and quickly taken apart for shipping or transportation.

PRICE {	No. 41	.	.	.	.	\$43.00
	No. 61	.	.	.	.	38.00

FOR LIST OF REPAIRS, SEE PAGE 111.

Royal (Steel) Forges Nos. 50 and 70

For Toolmakers, Tin Shops, Jewelers, Dentists, Small Repair Shops.

INDOOR WORK.



No. 50.

Fan, 10 inches.
Hearth, 22 inches.
Height, 30 inches.
Weight, 100 pounds.

No. 70.

Fan, 10 inches.
Hearth, 18 inches.
Height, 30 inches.
Weight, 95 pounds.

Crank Turns Forward or Backward.
Capacity to heat $3\frac{1}{2}$ -inch iron.

Can be quickly taken apart for shipping or transportation.

PRICE {	No. 50	\$43.00
	No. 70	38.00

FOR LIST OF REPAIRS, SEE PAGE 111.

Royal (Steel) Forges Nos. 55 and 75

For Sawmills, Furniture Factories, Oil Refineries,
Wood Shops, Etc.



No. 55.

Fan, 10 inches.
Hearth, 22 inches.
Height, 30 inches.
Weight, 110 pounds.

No. 75.

Fan, 10 inches.
Hearth, 18 inches.
Height, 30 inches.
Weight, 100 pounds.

Crank Turns Forward or Backward.
Capacity to heat 3½-inch iron.

This Forge is arranged for such places where it is objectionable and dangerous to have smoke, gas or sparks escape.

PRICE {	No. 55	\$45.00
	No. 75	40.00

FOR LIST OF REPAIRS, SEE PAGE 111.

Royal (Steel) Forge No. 76

For Riveters, Boilermakers, Mines, Quarries, Etc.



Fan, 9 inches.
Hearth, 18 inches.

Height, 30 inches.
Weight, 85 pounds.

Crank Turns Forward or Backward.
Capacity to heat $3\frac{1}{2}$ -inch iron.

Forge No. 76 is similar in appearance but cheaper in construction than our regular Royal Forges of like type.

PRICE \$30.00

FOR LIST OF REPAIRS, SEE PAGE 111.

Royal (Steel) Forge No. 80

For Bridge-builders, Contractors, Rivet Work, Etc.



With Hollow Cast-iron
Column and Base.
Steel Hearth.

Fan, 10 inches.
Hearth, 18 inches.
Height, 30 inches.
Weight, 95 pounds.

Crank Turns Forward or Backward.
Capacity to heat $3\frac{1}{2}$ -inch iron.

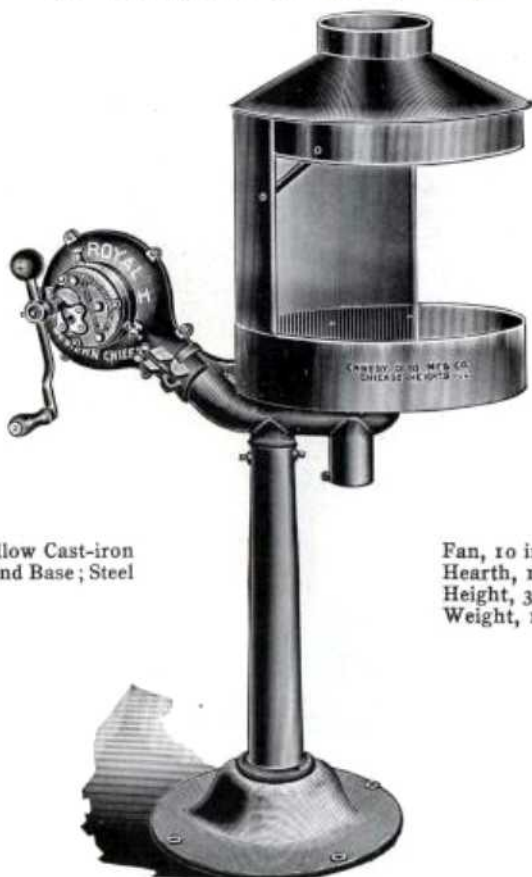
In this Forge we aim to please customers who prefer Stand to Legs. It can be quickly taken apart for transportation. It is especially adapted to Miners, Bridgebuilders, Contractors, Railroad and Trestle Work, the Round Base giving it a solid foundation in high-up places. Hearth and Blower part can be detached from Stand and operated inside of Boilers and low-down places.

PRICE \$35.00

FOR LIST OF REPAIRS, SEE PAGE 111.

Royal (Steel) Forge No. 81

For the Garage and Automobile Repair Shop.



With Hollow Cast-iron
Column and Base; Steel
Hearth.

Fan, 10 inches.
Hearth, 18 inches.
Height, 30 inches.
Weight, 100 pounds.

Crank Turns Forward or Backward.
Capacity to heat $3\frac{1}{2}$ -inch iron.

This Forge, while suitable for all indoor use, is designed especially for the Garage and Automobile repair shop. The neatest and best forge for this purpose upon the market.

PRICE \$38.00

Can be furnished with a full enclosed hood, if desired;
then known as No. 82, Price, \$40.00

FOR LIST OF REPAIRS, SEE PAGE 111.

ROYAL (Western Chief) FORGES

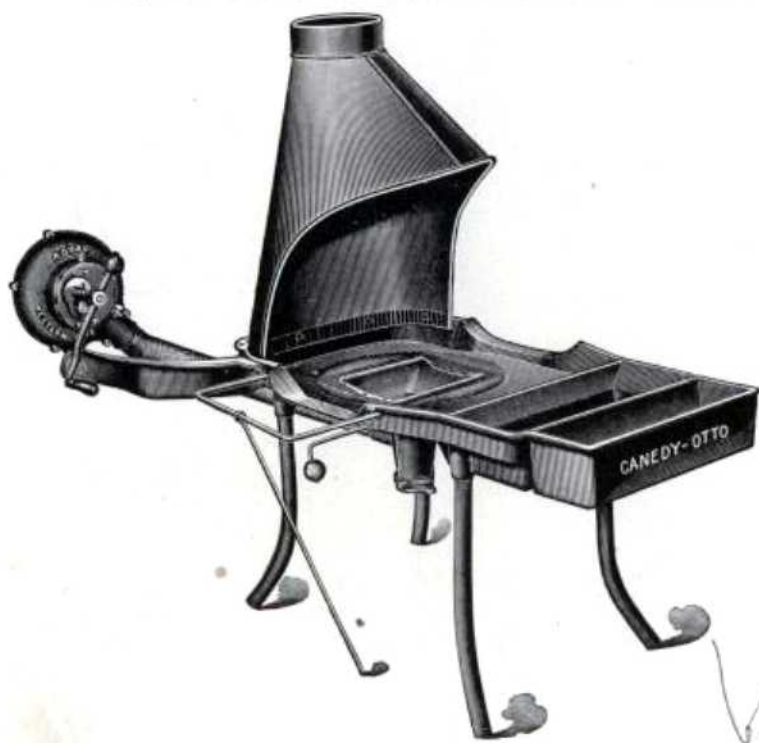
Pages 24 to 35 •

(Repair List in Back of Book)

Forges under this name have CAST-IRON Hearths,
with Royal Blower Attachment—Crank Movement only.

Royal (WESTERN CHIEF) Forge No. 100

For use of Large Blacksmith, Wagon, Plow, Railroad Shops, Etc., where Heavy Work Is Done, and a First-class Forge and Fire Are Needed.



Fan, 12 inches.

Hearth, $31\frac{1}{2} \times 45\frac{1}{2}$ inches.

Height, 30 inches.

Length over all, 53 inches.

Crank Turns Forward or Backward.

Capacity to heat 4-inch iron.

In this Forge we combine our "Royal" style of Blower with Western Chief Standard Hearth, having Solid Fire-pot with Tuyere Ball furnishing side and center blast. **We guarantee it fully.**
For detailed description of Hearth, see page 5.

PRICE { With one Tank, weight, 295 lbs. . . . \$50.00
 With EXTRA Tank (as illust'd), weight, 325 lbs 55.00

(Always shipped WITHOUT EXTRA TANK, unless so ordered.)

FOR LIST OF REPAIRS, SEE PAGE 111.

Royal ^(WESTERN CHIEF) Forge No. 200

With Improved Smoke Conveyor, Royal Blower and Western Chief Standard Hearth.



Fan, 12 inches.

Hearth, $31\frac{1}{2} \times 45\frac{1}{2}$ inches.

Height, 30 inches.

Length over all, 53 inches.

Crank Turns Forward or Backward.

Capacity to heat 4-inch iron.

In this Forge we combine our "Royal" style of Blower with Western Chief Standard Hearth, having Solid Fire-pot with Tuyere Ball furnishing side and center blast. **We guarantee it fully.**

For detailed description of Hearth, see page 5.

PRICE { With one Tank, weight, 300 lbs. . . . \$55.00
 { With EXTRA Tank (as illust'd), weight, 330 lbs. 60.00

(Always shipped WITHOUT EXTRA TANK, unless so ordered.)

FOR LIST OF REPAIRS, SEE PAGE 111.

Royal (WESTERN CHIEF) Forge No. 102

For Well-drillers, Railroads, Boilermakers, Quarries, Contractors,
Outdoor Work, Etc.



Fan, 10 inches.
Hearth, 23 x 34 inches.

Height, 30 inches.
Weight, 180 pounds.

Crank Turns Forward or Backward.
Capacity to heat 3 1/2-inch iron.

The very best and highest grade throughout. The "Royal"
type of Blower and Duck Nest Fire-pot.

PRICE \$38.00

FOR LIST OF REPAIRS, SEE PAGE 111.

Royal ^(WESTERN CHIEF) Forge No. 103

For Horseshoers, Small Blacksmith Shops, Boilermakers, Etc.



Fan, 10 inches.

Hearth, 23 x 34 inches.

Height, 30 inches.

Weight, 185 pounds.

Crank Turns Forward or Backward.

Capacity to heat $3\frac{1}{2}$ -inch iron.

The very best and highest grade throughout. The "Royal" type of Blower and Duck Nest Fire-pot.

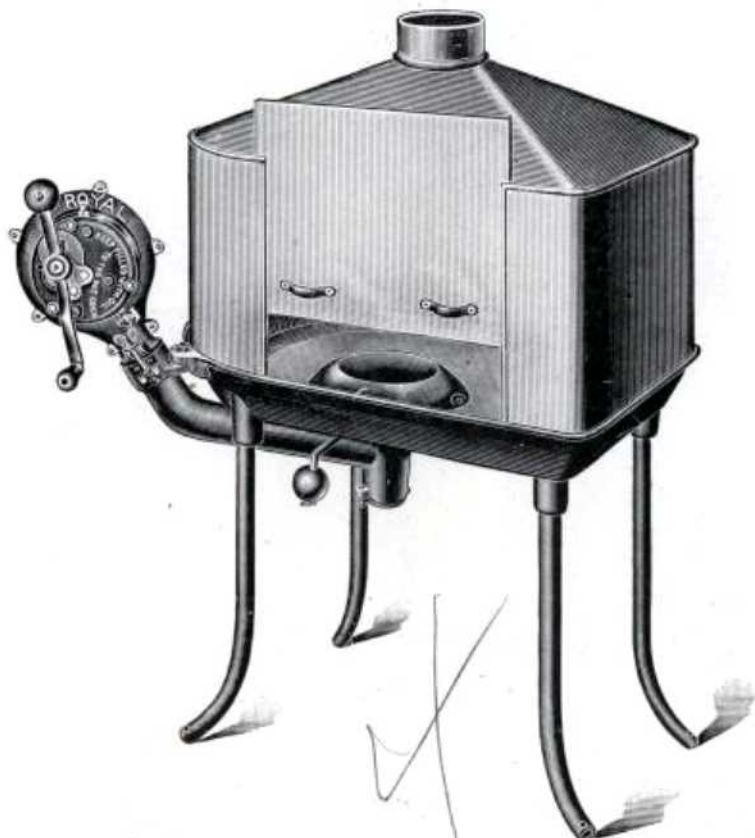
PRICE

\$42.00

FOR LIST OF REPAIRS. SEE PAGE 111.

Royal (WESTERN CHIEF) Forge No. 103 $\frac{1}{4}$

Made Especially for Furniture Factories, Sawmills, Wood Shops, Oil Refineries, Etc., where Sparks, Escaping Gas, Etc., are Objectionable.



Fan, 10 inches.
Hearth, 23 x 34 inches.

Height, 30 inches.
Weight, 200 pounds.

Crank Turns Forward or Backward.
Capacity to heat 3 $\frac{1}{2}$ -inch iron.

The very best and highest grade throughout. The "Royal" type of Blower and Duck Nest Fire-pot, also Hood having doors, front and back.

PRICE

\$45.00

FOR LIST OF REPAIRS, SEE PAGE 111.

Royal ^(WESTERN CHIEF) Forge No. 105¹/₂

For Furniture Factories, Sawmills, Wood Shops, Oil Refineries, Dentists,
Etc., where Sparks, Escaping Gas, Etc., Are Objectionable.



Fan, 10 inches.
Hearth, 22 inches.

Height, 33 inches.
Weight, 130 pounds.

Crank Turns Forward or Backward.
Capacity to heat 3 1/2-inch iron.

The very best and highest grade throughout. The "Royal" type of Blower with Cast-iron Hearth — will outwear Steel Hearth.

PRICE

\$38.50

FOR LIST OF REPAIRS, SEE PAGE 111.

Royal (WESTERN CHIEF) Forge No. 104

Excellent for Mines, Quarries, Bridge-builders, Railroad and Outdoor Repair or Construction Work.



Fan, 10 inches.
Hearth, 22 inches.

Height, 33 inches.
Weight, 120 pounds.

Crank Turns Forward or Backward.
Capacity to heat $3\frac{1}{2}$ -inch iron.

The very best and highest grade throughout. The "Royal" type of Blower with Cast-iron Hearth—will outwear Steel Hearth. The most serviceable constructed for outdoor use.

PRICE \$33.00

FOR LIST OF REPAIRS, SEE PAGE 111.

Royal ^(WESTERN CHIEF) Forge No. 105

For Toolmakers, Jewelers, Dentists, Tin Shops, Repair Shops, Etc.



Fan, 10 inches.
Hearth, 22 inches.

Height, 33 inches.
Weight, 125 pounds.

Crank Turns Forward and Backward.
Capacity to heat $3\frac{1}{2}$ -inch iron.

The very best and highest grade throughout. The "Royal" type of Blower with Cast-iron Hearth—will outwear Steel Hearth.

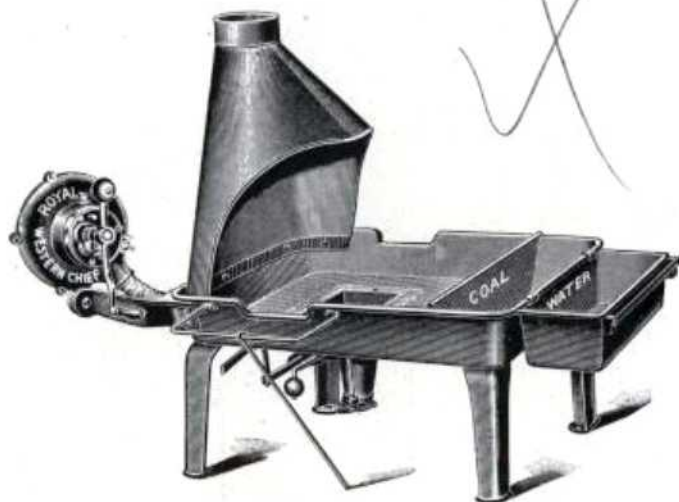
PRICE

\$36.00

FOR LIST OF REPAIRS, SEE PAGE 111.

Royal (WESTERN CHIEF) Forge No. 8

For Large, Heavy Blacksmith, Plow and Agricultural Shops.



Fan, 12 inches.
Height, 26 inches.

Hearth, $37\frac{1}{2} \times 41$ inches.
Over all, $37\frac{1}{2} \times 51$ inches.

Crank Turns Forward or Backward.

Capacity for Largest Work.

This Forge has solid Fire-pot with side and Center Blast Tuyere Ball, also Tool Rest and Racks.

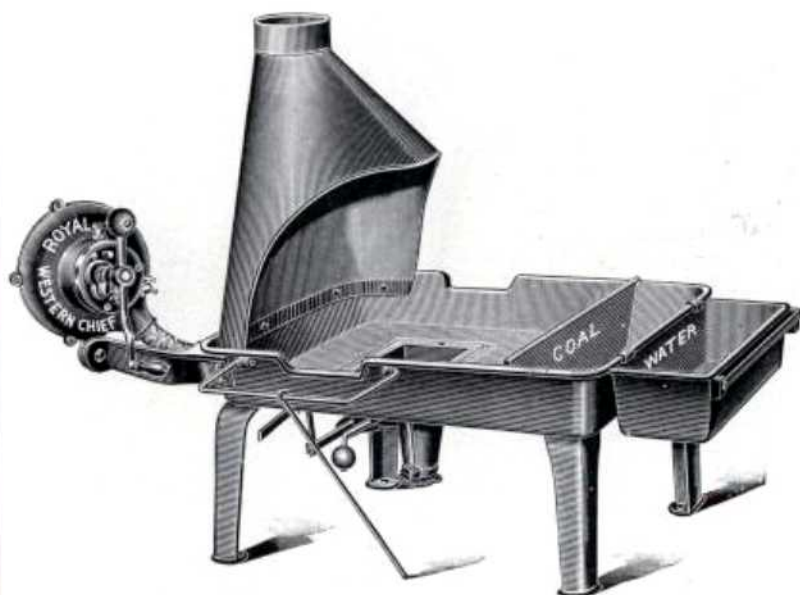
PRICE	{ Plain, no Tank, no Hood, weight 435 lbs.	\$65.00
	{ With Tank, no Hood, weight 500 lbs.	70.00
	{ With Hook, no Tank, weight 450 lbs.	70.00
	{ With Tank and Hood (as illustrated), weight 515 lbs.	75.00

When specially requested, will furnish Round Canopy Hood at same price as Half-hood.

FOR LIST OF REPAIRS, SEE PAGE 111.

Royal (WESTERN CHIEF) Forge No. 9

For Large, Heavy Blacksmith, Plow and Agricultural Shops.



Fan, 12 inches.
Height, 26 inches.

Hearth, 38 x 50 inches.
Over all, 38 x 60 inches.

Crank Turns Forward or Backward.
Capacity for Largest Work.

This Forge has solid Fire-pot with Side and Center Blast Tuyere Ball, also Tool Rest and Racks.

PRICE	{ Plain, no Tank, no Hood, weight 500 lbs.	\$70.00
	{ With Tank, no Hood, weight 565 lbs.	75.00
	{ With Hood, no Tank, weight 515 lbs.	75.00
	{ With Tank and Hood (as illustrated), weight 580 lbs.	80.00

(When specially requested, will furnish Round Canopy Hood at same price as Half-hood.)

FOR LIST OF REPAIRS, SEE PAGE 111.

Royal (WESTERN CHIEF) Forge No. 99

For Large, Heavy Construction and Contractors' work.
Out-door use.



Fan, 12 inches.

Height, 30 inches.

Length over all,
53 inches.

Hearth, $31\frac{1}{2} \times 45\frac{1}{2}$ inches.

Crank Turns Forward or Backward.
Capacity to heat 4-inch iron.

In this Forge we combine our "Royal" style of Blower with the Western Chief Standard Hearth, having solid Fire-pot with Tuyere Ball furnishing side and center blast. **We guarantee it fully.**

For detailed description of Hearth, see page 5.

PRICE { With one Tank, weight 290 lbs. . . . \$46.00
With EXTRA Tank (as illust'd), weight 320 lbs. 51.00

(Always shipped WITHOUT EXTRA TANK, unless so ordered.)

FOR LIST OF REPAIRS, SEE PAGE 111.

Western Chief
Hero
Leader
Challenge
and Chicago

F O R G E S

Pages 36 to 72

(Repair List in Back of Book.)

Forges under above names are all with Cast-iron Hearths, and (excepting Stationary and Leader Forges), are operated by lever movement or pulley power or both.

Western Chief Forge No. 1

The Largest Portable Forge Made.



Fan, 14 1/2 inches.

Hearth, 31 1/2 x 45 1/2 inches.

Height, 30 inches.

Length over all, 53 inches.

Capacity to heat 4 1/2-inch iron.

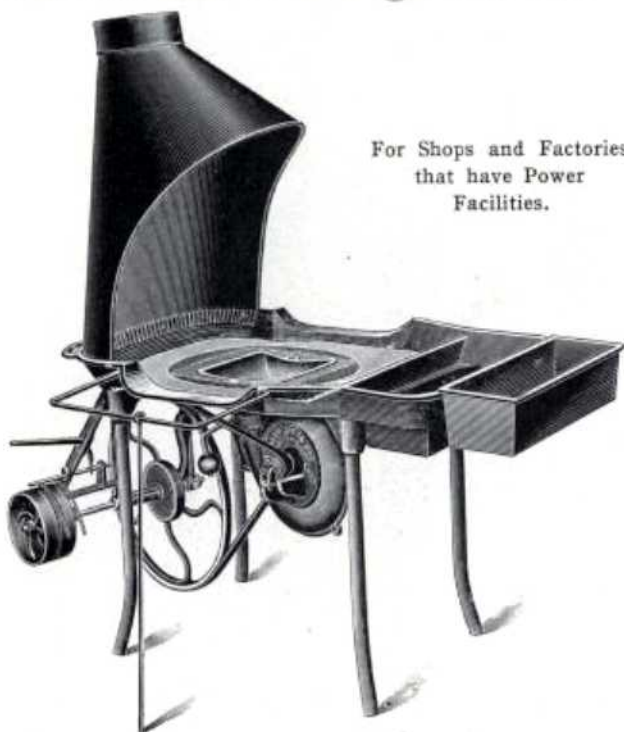
This Forge is adapted to the largest, heaviest work. It has a solid Fire-pot with Tuyere Ball, furnishing side and center blast. Is equipped with Brass Boxes and Oil Cups throughout, also Noiseless Adjustable Friction Clutch. This forge can be furnished reversed, to operate with the **right arm**, for **left-handed** smiths, when desired. For detailed description of Hearth, see page 5.

PRICE {	With One Tank, weight 315 lbs.	\$50.00
	With EXTRA Tank (as illust'd), weight 345 lbs.	55.00

(Always shipped WITHOUT EXTRA TANK, unless so ordered.)

FOR LIST OF REPAIRS, SEE PAGE 113.

Western Chief Forge No. 1 $\frac{1}{2}$



For Shops and Factories
that have Power
Facilities.

Fan, 14 $\frac{1}{2}$ inches.

Hearth, 31 $\frac{1}{2}$ x 45 $\frac{1}{2}$ inches.

Height, 30 inches.

Length over all, 53 inches.

Capacity to heat 4 $\frac{1}{2}$ -inch iron.

Size of Pulleys, 7 $\frac{1}{2}$ x 1 $\frac{3}{4}$ inches, should run 125 Revolutions per minute.

This Forge is arranged for power, and adapted to heavy work. It is equipped with Solid Fire-pot with Tuyere Ball furnishing side and center blast. Brass Boxes and Oil Cups throughout. When desired, can be furnished with Hand Power Attachment, a convenience when power is not running. It has Blast Gate to regulate Blast when driven by power. For detailed description of Hearth, see page 5.

PRICE	{	With One Tank . . .	Weight, 315 lbs.,	\$53.00
		With Extra Tank (as illustrated)	" 345 "	58.00
		With One Tank and Hand Power	" 330 "	57.00
		With Extra Tank, also Hand Power	" 360 "	62.00

(Never shipped WITH EXTRA TANK, nor HAND POWER, unless asked for.)

FOR LIST OF REPAIRS, SEE PAGE 113.

Western Chief Forge No. 2

Suitable for Bridge-builders, Railroads, Quarries, Well-drivers,
Boilermakers, Etc.



Fan, 12 inches.

Hearth, 23 x 34 inches.

Height, 30 inches.

Weight, 195 pounds.

Capacity to heat 3-inch iron.

This Forge is equipped with Brass Boxes and Oil Cups throughout, also Noiseless, Adjustable Friction Clutch, and has a **Duck Nest Fire-pot.**

PRICE **\$36.00**

FOR LIST OF REPAIRS, SEE PAGE 115.

Western Chief Forge No. 3

Suitable for Boilermakers, Horseshoers, Small Blacksmith
Shops, Etc.



Fan, 12 inches.

Hearth, 23 x 34 inches.

Height, 30 inches.

Weight, 200 pounds.

Capacity to heat 3-inch iron.

This Forge is equipped with Brass Boxes and Oil Cups throughout, also Noiseless, Adjustable Friction Clutch, and has a **Duck Nest Fire-pot**.

PRICE \$40.00

FOR LIST OF REPAIRS, SEE PAGE 115.

Western Chief Forge No. 3 $\frac{1}{4}$

For Furniture Factories, Sawmills, Wood Shops, Oil Refineries, Etc.



Fan, 12 inches.

Hearth, 23 x 34 inches.

Capacity to heat 3-inch iron.

Height, 30 inches.

Weight, 215 pounds.

This Forge, having full enclosed Hood, with Doors both front and back, is desirable where it is dangerous or objectionable to have Smoke, Gas or Sparks escape. Is equipped throughout with Brass Boxes and Oil Cups, also Noiseless, Adjustable Friction Clutch, and has a **Duck Nest Fire-pot**.

PRICE {	With Hand Lever (as illustrated)	\$42.00
	With Power Attachment only	47.00
	With both Hand and Power	50.00

FOR LIST OF REPAIRS, SEE PAGE 115.

Western Chief Forge No. 3 $\frac{1}{2}$

For Small Blacksmith and Repair Shops where Power is Used.



Fan, 12 inches.

Hearth, 23 x 34 inches.

Height, 30 inches.

Weight, 205 pounds.

Capacity to heat 3-inch iron.

Size of Pulleys, 7 $\frac{1}{2}$ x 1 $\frac{3}{4}$ inches, should run 125 Revolutions per minute.

Is equipped with Brass Boxes and Oil Cups throughout, and has a **Duck Nest Fire-pot.**

When desired, it can be furnished with Hand-power Attachment, a convenience when power is not running.

PRICE {	Power Attachment only (as illustrated)	\$45.00
	Power Attachment, also Hand Power	48.00

Always shipped for **POWER ONLY**, unless otherwise ordered.

FOR LIST OF REPAIRS, SEE PAGE 115.

Western Chief Forge No. 4

A Splendid Forge for Mines, Quarries, Bridge-builders, Railroad
and Outdoor Repair Work.



Fan, 9 inches.

Hearth, 22 inches.

Height, 33 inches.

Weight, 120 pounds.

Capacity to heat 2½-inch iron.

It is equipped throughout with Brass Boxes and Oil Cups, also
Noiseless, Adjustable Friction Clutch.

PRICE

\$24.00

FOR LIST OF REPAIRS, SEE PAGE 117.

Western Chief Forge No. 5

For Toolmakers, Bicycle Repair Shops, Jewelers, Dentists, Tin Shops, Farmers, Etc.



Fan, 9 inches.
Hearth, 22 inches.

Height, 33 inches.
Weight, 125 pounds.

Capacity to heat 2 1/2-inch iron.

It is equipped throughout with Brass Boxes and Oil Cups, also Noiseless, Adjustable Friction Clutch.

PRICE

\$27.00

FOR LIST OF REPAIRS, SEE PAGE 117.

Western Chief Forge No. 5 $\frac{1}{2}$

For Jewelers, Dentists, Furniture Factories, Sawmills,
Wood Shops, Oil Refineries, Etc.



Fan, 9 inches.
Hearth, 22 inches.

Height, 33 inches.
Weight, 130 pounds.

Capacity to heat 2 $\frac{1}{2}$ -inch iron.

It is equipped throughout with Brass Boxes and Oil Cups, also Noiseless, Adjustable Friction Clutch.

PRICE \$29.50

FOR LIST OF REPAIRS, SEE PAGE 117.



NOTICE

DON'T leave us to guess at what is wanted on your orders.

If a FORGE, that is listed with and without Hoods, Tanks, etc., state the way you want it.

If a BLOWER, be explicit on essential points; Names and Sizes.

If a DRILL, state whether wanted *with* or *without* pulleys; also whether CHUCK shall be with $\frac{1}{2}$ -inch or $\frac{1}{64}$ -inch hole.

A little care in these matters will save delays, errors, disappointments.

Western Chief Forge Size CC

A Small Stationary Blast Forge, Suitable for the Requirements of Ordinary Medium-sized Work.



Hearth, 23 x 34 inches.

Height, 30 inches.

Weight, 145 pounds.

This Forge has no blast machinery, and is intended for use in shops where power blast is furnished, or can be used with ordinary blower or bellows. It has a blast gate in its pipe connections, also has **Duck Nest Fire-pot**, and is well adapted to all ordinary, medium-sized work.

PRICE {	Plain, as illustrated, no Hood	\$20.00
	With Half-hood	24.00

FOR LIST OF REPAIRS, SEE PAGE 119.

Western Chief Forge Size AA

A Stationary Blast Forge, of Size and Construction Suitable for all the Requirements of Ordinary Shop Use.



Hearth, $31\frac{1}{2} \times 45\frac{1}{2}$ inches. Height, 30 inches. Length over all, 53 inches.

This Forge has no blast machinery; it is for use in shops where power blast is furnished, or can be used with ordinary bellows or blower. It has Solid Fire-pot, also side and center blast Tuyere Ball, Tool Rest, etc. It is adapted to heavy work, and is much superior to a brick forge. For detailed description of Hearth, see page 5.

DESCRIPTION	WEIGHT	PRICE
Plain, One Tank only, no Hood	220	\$25.00
With EXTRA Tank, no Hood	250	30.00
With one Tank and Half-hood	235	30.00
With EXTRA Tank and Half-hood (as illust'd) .	265	35.00

FOR LIST OF REPAIRS, SEE PAGE 119.

Western Chief Forge Size BB

A Stationary Blast Forge, very Large, Heavy and Strong. Is Cheaper and much Handsomer than a Brick or Stone Forge.



Height, 26 inches.
Hearth, $37\frac{1}{4} \times 41$ inches.

Over all,
 $37\frac{1}{4} \times 51$ inches.

This Forge is intended for shops supplied with power blast, or can be used with ordinary bellows or blower, if desired. Is equipped with Solid Fire-pot, with side and center blast Tuyere Ball. Has Tool Rest and Racks, and Lever Attachment to blast Gate, by which the smith easily regulates the blast. The most complete Forge of its kind on the market.

PRICE	{ Plain, no Tank, no Hood . . . weight, 375 lbs.	\$35.00
	{ With Tank, no Hood . . . " 440 "	40.00
	{ With Hood, no Tank . . . " 390 "	40.00
	{ With Tank and Hood (as illustrated) " 455 "	45.00

When specially requested, will furnish Round Canopy Hood at same price as Half-hood.)

FOR LIST OF REPAIRS, SEE PAGE 119.

Western Chief Forge Size XBB

A Stationary Blast Forge, very Large, Heavy and Strong. Is Cheaper and much Handsomer than a Brick or Stone Forge.



Height, 26 inches.
Hearth, 38 x 50 inches.

Over all,
38 x 60 inches.

This Forge is intended for shops supplied with power blast, or can be used with ordinary bellows or blower, if desired. It is equipped with Solid Fire-pot, with side and center blast Tuyere Ball. Has Tool Rest and Racks, and Lever Attachment to Blast Gate, by which the smith easily regulates the blast. The most complete Forge of its kind on the market.

PRICE	Plain, no Tank, no Hood . . .	weight, 440 lbs.	\$40.00
	With Tank, no Hood . . .	" 505 "	45.00
	With Hood, no Tank . . .	" 455 "	45.00
	With Tank and Hood (as illustrated)	" 520 "	50.00

(When specially requested, will furnish Round Canopy Hood at same price as Half-hood.)

FOR LIST OF REPAIRS, SEE PAGE 119.

Western Chief "Contractors and Builders Forge" No. 16

For Use in all Kinds of Building and Construction Work, Elevated Railroads, Bridges, Boiler-making, Etc.



Fan, 12 inches.
Hearth, 22 inches.

Height, 33 inches.
Weight, 170 pounds.

It is equipped with Adjustable Box for holding rivets to be heated, and also Coal Box conveniently located, though out of the way. The Belts are protected against damage from weather by shields which cover them. It has adjustable handles for carrying or moving the Forge from one place to another, which, when Forge is in use, are dropped down and not in the way. Its operation is extremely easy, as it is equipped with Brass Boxes and Oil Cups, and Noiseless Adjustable Friction Clutch.

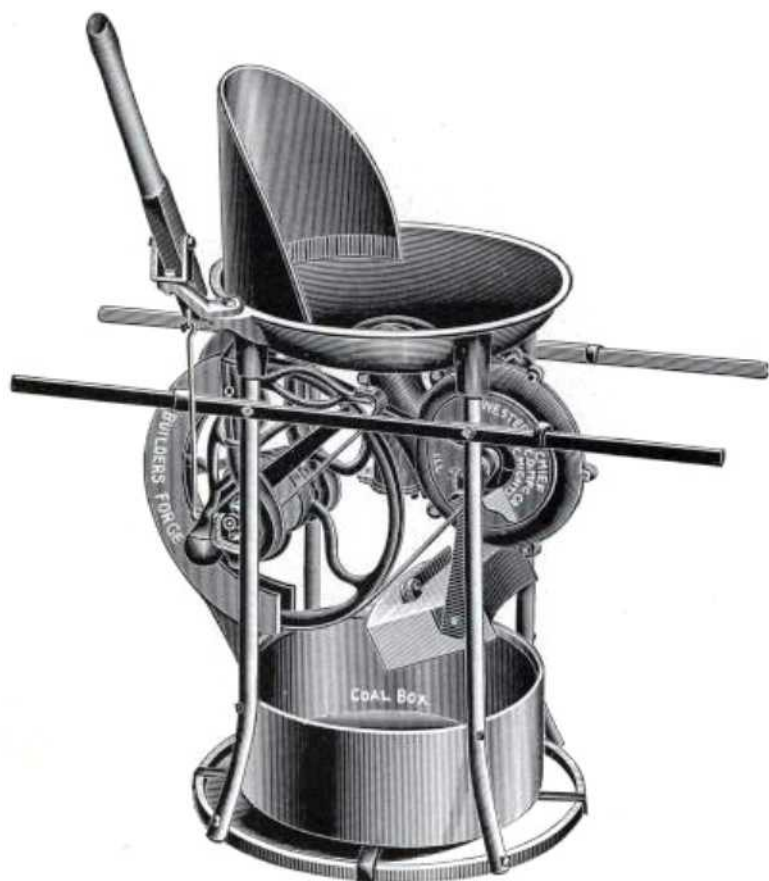
PRICE

\$40.00

FOR LIST OF REPAIRS, SEE PAGE 117.

Western Chief "Contractors and Builders Forge" No. 16

(For description, see opposite page.)



The above cut shows the manner in which our Western Chief "Contractors and Builders Forge" is arranged for moving from one place to another. The Rivet Box is made to swing down underneath the Hearth, if desired, and the handle to raise so that it can be very easily carried. The frequent necessity for moving the position of a forge in building and construction work makes these features most valuable.

Western Chief Combined Forge and Blower Size AG

An Excellent Substitute for the Old-fashioned Brick Forge and Bellows.



DIMENSIONS.

FORGE { Over all, $31\frac{1}{2}$ x 53 inches.
Height, 30 inches.
Weight, 265 pounds.

BLOWER { Fly-wheel, 36 inches.
Fan, $16\frac{1}{2}$ inches.
Weight, 150 pounds.

This combination of Forge and Blower is complete in every detail, and much more desirable than a brick forge and bellows. The Blower runs very easily and furnishes a tremendous blast; and, as it sets up close behind the Forge, but very little space is taken. The Forge is equipped with side and center blast Tuyere Ball, and also Solid Firepot. Ashes and cinders are easily removed. Everything within easy reach and arranged for the convenience of the smith. For details of Forge Hearth, see page 5.

PRICE {	Complete (as illustrated)	\$70.00
	Without Hood or without Extra Tank	65.00
	Without both Hood and Extra Tank	60.00

FOR LIST OF REPAIRS, SEE PAGES 119 AND 135.

EVERY
FORGE, BLOWER AND DRILL

UNDER THE NAME

“Royal”
OR
“Western Chief”

IS GUARANTEED TO CONTAIN

THE BEST QUALITY
THE BEST WORKMANSHIP
THE BEST FINISH
THE BEST EVERYTHING

CONSEQUENTLY, THEY ARE THE BEST AND CHEAPEST
FORGES, BLOWERS AND DRILLS OFFERED

Hero Forge No. 6

Suitable for Mines, Quarries, Prospectors, Bridges and Outdoor Work.



Fan, $7\frac{1}{2}$ inches.
Hearth, 18 inches.

Height, 30 inches.
Weight, 90 pounds.

This Forge has capacity to heat $1\frac{1}{2}$ -inch iron, also has shelf as shown, and is equipped with Noiseless, Adjustable Friction Clutch.

PRICE \$20.00

FOR LIST OF REPAIRS, SEE PAGE 121.

Hero Forge No. 7

Very Popular with Toolmakers, Tin Shops, Farmers, Jewelers, Small Repair Shops, Etc.



Fan, $7\frac{1}{2}$ inches.
Hearth, 18 inches.

Height, 30 inches.
Weight, 95 pounds.

This forge has capacity to heat $1\frac{1}{2}$ -inch iron, also has shelf and Hood as shown and is equipped with Noiseless, Adjustable Friction Clutch.

PRICE \$23.00

FOR LIST OF REPAIRS, SEE PAGE 121.

Leader Forge No. 11

Suitable for Light Outdoor Work.



Fan, $7\frac{1}{2}$ inches.
Hearth, 18 inches.

Height, 30 inches.
Weight, 65 pounds.

Capacity to heat 1-inch iron.

PRICE

\$14.00

FOR LIST OF REPAIRS, SEE PAGE 121.

Leader Forge No. 12

Suitable for Light Indoor Work.



Fan, $7\frac{1}{2}$ inches.
Hearth, 18 inches.

Height, 30 inches.
Weight, 70 pounds.

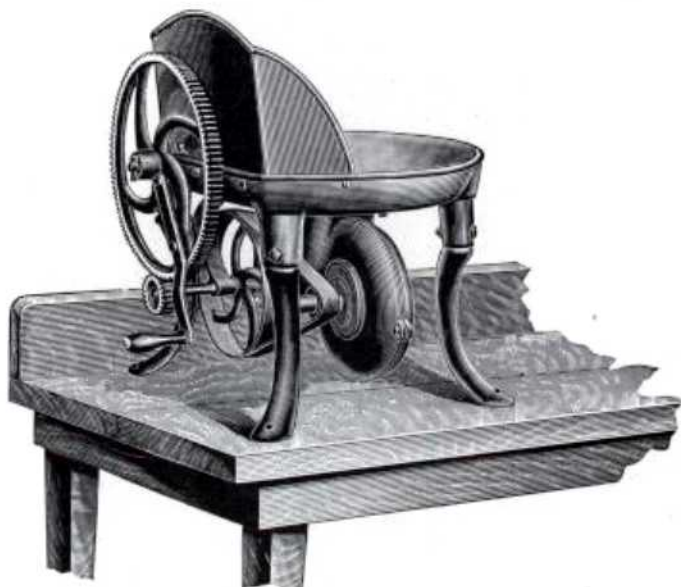
Capacity to heat 1-inch iron.

PRICE \$16.00

FOR LIST OF REPAIRS, SEE PAGE 121.

Leader Bench Forges

Nos. 13 and 14



Fan, $7\frac{1}{2}$ inches.

Hearth, 18 inches.

Height, $12\frac{1}{2}$ inches.

Capacity to heat 1-inch iron.

Can be packed in box, 19 x 19 x 14 inches.

PRICE {	No. 13 with Shield, weight, 65 lbs.	\$14.00
	No. 14 with Half-hood, weight, 70 lbs.	16.00

FOR LIST OF REPAIRS, SEE PAGE 121.

Challenge Forge No. 1c



Fan, 14½ inches.

Hearth, 45 x 31 inches.

Height, 30 inches.

Length over all, 53 inches.

Capacity to heat 4-inch iron.

This Forge is constructed for the heaviest kind of work. It has an improved Fire-pot, separate from Hearth, which securely holds clay. The Blast is direct from Fan and very powerful, by which, in connection with Side and Center Blast Tuyere Ball, a quick heat with little labor is secured.

PRICE { Without Tank, weight, 275 lbs. . . . \$50.00
 { With Tank (as illustrated), weight 300 lbs. . . . 55.00

Power Attachment, \$2.50 net, extra.

(Always shipped WITHOUT TANK, unless specially ordered.)

FOR LIST OF REPAIRS, SEE PAGE 123.

Challenge Forge No. 2c

Suitable for Boilermakers, Bridge-builders, Railroads, Well-drivers,
Outdoor Work.



Fan, 12½ inches.

Hearth, 35 x 23 inches.

Height, 30 inches.

Weight, 180 pounds.

Capacity to heat 3-inch iron.

PRICE

\$36.00

FOR LIST OF REPAIRS, SEE PAGE 125.

Challenge Forge No. 3c

Suitable for Machinists, Plumbers, Tin Shops, Locksmiths, Horseshoers,
Small Blacksmith Shops, Etc.



Fan, 12½ inches.

Hearth, 35 x 23 inches.

Height, 30 inches.

Weight, 185 pounds.

Capacity to heat 3-inch iron.

PRICE \$40.00

FOR LIST OF REPAIRS, SEE PAGE 125.

Challenge Forge No. 4c

For Quarries, Boilermakers, Mines, Bridge-builders, Prospectors,
Outdoor Work, Etc.



Fan, $9\frac{1}{2}$ inches.
Hearth, 22 inches.

Height, 33 inches.
Weight, 120 pounds.

Capacity to heat $2\frac{1}{2}$ -inch Iron.

PRICE \$24.00

FOR LIST OF REPAIRS, SEE PAGE 127.

Challenge Forge No. 5c

For Bicycle Repair Shops, Toolmakers, Tin Shops, Plumbers, Light
Repair Shops of any Kind.



Fan, 9½ inches.
Hearth, 22 inches.

Height, 33 inches.
Weight, 125 pounds.

Capacity to heat 2½-inch iron.

PRICE \$27.00

FOR LIST OF REPAIRS, SEE PAGE 127.

Challenge Forge No. 5 $\frac{1}{2}$ c

For Jewelers, Dentists, Furniture Factories, Sawmills,
Wood Shops, Oil Refineries, Etc.



Fan, 9 $\frac{1}{2}$ inches.
Hearth, 22 inches.

Height, 33 inches.
Weight, 130 pounds.

Capacity to heat 2 $\frac{1}{2}$ -inch iron.

PRICE \$29.50

FOR LIST OF REPAIRS, SEE PAGE 127.



Complete Lists of Repairs

FOR ALL

FORGES, BLOWERS AND DRILLS

IN THIS CATALOGUE WILL BE FOUND ON

Pages 110 to 152

In ordering Repairs, use same numbers and names of parts that we do—Result, you will get what you want.

Chicago Forge No. 150



Fan, 8 inches.
Hearth, 18 inches.

Height, 30 inches.
Weight, 65 pounds.

A light, move-about Forge; adapted to light work. Is suited to quarries, mines, etc., and popular as a low-priced article.

PRICE	\$14.00
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FOR LIST OF REPAIRS, SEE PAGE 129.

Chicago Forge No. 151



Fan, 8 inches.
Hearth, 18 inches.

Height, 30 inches.
Weight, 70 pounds.

Suitable for farmers, small shops, toolmakers, etc. Has half-hood for indoor use. An inexpensive Forge and well made.

PRICE	\$16.00
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FOR LIST OF REPAIRS, SEE PAGE 129.

Chicago Forge No. 154



Fan, 8 $\frac{3}{4}$ inches.
Hearth, 22 inches.

Height, 30 inches.
Weight, 85 pounds.

A very good outdoor Forge for use on ranches, farms, at mines, quarries, etc., where expensive equipment is not a necessity.

PRICE

\$16.00

FOR LIST OF REPAIRS, SEE PAGE 129.

Chicago Forge No. 155



Fan, $8\frac{3}{4}$ inches.
Hearth, 22 inches.

Height, 30 inches.
Weight, 90 pounds.

Has half-hood for indoor use, and well adapted to farmers, small shops, etc., where an inexpensive Forge is desired.

PRICE	\$19.00
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FOR LIST OF REPAIRS, SEE PAGE 129.

Chicago Forge No. 152



Fan, 12 $\frac{1}{2}$ inches.

Hearth, 25 x 36 inches.

Height, 30 inches.

Weight, 170 pounds.

This Forge has a large, roomy Fire-pot, conveniently shaped Hearth and splendid blast; Ratchet Clutch. Is a serviceable Forge at a low cost.

PRICE

\$36.00

FOR LIST OF REPAIRS, SEE PAGE 129.

Chicago Forge No. 153



Fan, 12½ inches.

Hearth, 25 x 36 inches.

Height, 30 inches.

Weight, 175 pounds.

This Forge has a large, roomy Fire-pot, conveniently shaped Hearth and splendid blast; Ratchet Clutch. Is a very serviceable Forge at a low cost.

PRICE

\$40.00

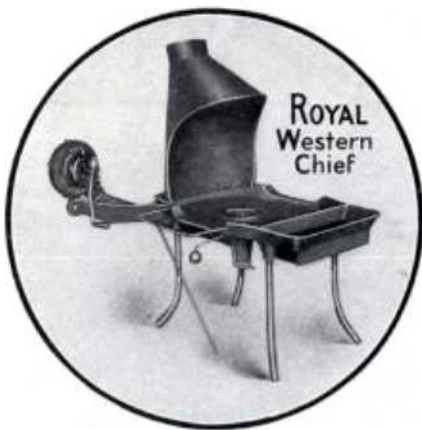
FOR LIST OF REPAIRS, SEE PAGE 129.



THE FORGE OF SYRIA.
(B. C. 300.)

Our Forges, Blowers, Drills, Etc.

ARE ON SALE AT THE
PRINCIPAL DEALERS EVERYWHERE.



THE FORGE OF AMERICA.
(Present Time.)

BLOWERS

Royal
Tiger
Western Chief
Pressure

Pages 74 to 92

(Repair List in Back of Book.)

Crank Movement only, Lever Movement only, or
both Crank and Lever Movement; *also Pulley Power.

Royal Blower

"The Successful Blower"

Crank Turns
Forward
or
Backward.

Noiseless
and
Easy to
Operate.

Gear case is oil-tight and
dust-proof. Gears run in
a continuous bath of oil.

Gears are Phosphor Bronze
and Steel, flat and straight
cut. No Spiral or Worm
Gears.

Fire-pot is
8x9½x4 inches
inside.

A powerful
blast; lasting
after blast.



Fan, 12 inches.

Height, 47 inches.

Weight, 135 pounds.

Can be furnished to operate with the right arm, for left-handed
smiths, when desired.

PRICE, complete as shown . . . \$28.00

FOR LIST OF REPAIRS, SEE PAGE 111.

Royal "Hand and Power" Blower

In this machine we combine Hand and Pulley Power. One pulley only is used, but so constructed as that it is both a **tight** and **loose** pulley. No shifting of belt.

A
Strong,
Steady,
Even
Blast.

Crank
Turns
Forward
or
Backward.

Gear case is oil-tight and dust-proof. Gears run in a continuous bath of oil.

Fire-pot is
8x9½x4 inches
inside.

Gears are Phosphor Bronze and Steel, flat and straight cut. No Spiral or Worm Gears.

Pulley, 7½x1¾ in.
should run
35 rev. per minute.



Fan, 12 inches.

Height, 47 inches.

Weight, 145 pounds.

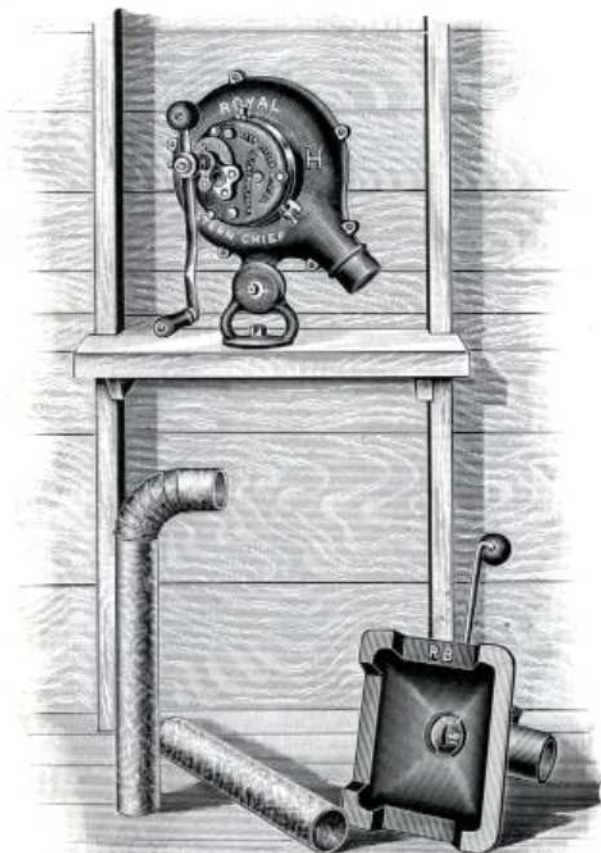
The neatest Combined Hand and Power Blower on the market.

PRICE, complete as shown . . . \$35.00

FOR LIST OF REPAIRS, SEE PAGE 111.

Royal "Bench" Blower

To accommodate those who do not have room for a Blower with stand, or those who prefer to place a Blower on a shelf or bench, we have arranged the **Royal Blower** with a bench stand.



Fan, 12 inches.
Crank Turns Forward
or Backward.

Royal Fire-pot Tuyere Iron.
Needs no Clay.
Size 8 x 9 1/2 x 4 inches inside.

PRICE {	With Tuyere (as illust'd), weight, 100 lbs.	\$25.00
	Without Tuyere, weight, 50 lbs.	21.00

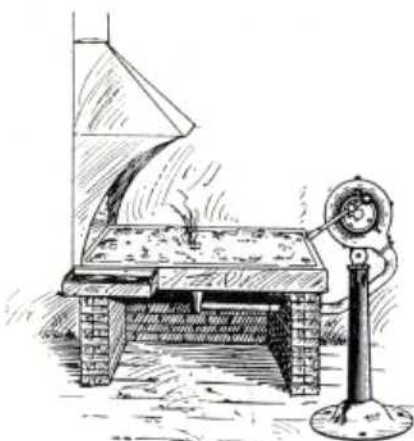
FOR LIST OF REPAIRS SEE PAGE 111.

AS TO THE POSITION



No. 1.

For **left-handed** smiths, with whom it is necessary to operate the blower with the **right arm**, a different shape of piping and reversed tuyere iron is furnished, permitting the blower to be placed as shown in illustration No. 2. This style of piping and tuyere is only furnished when specially asked for.

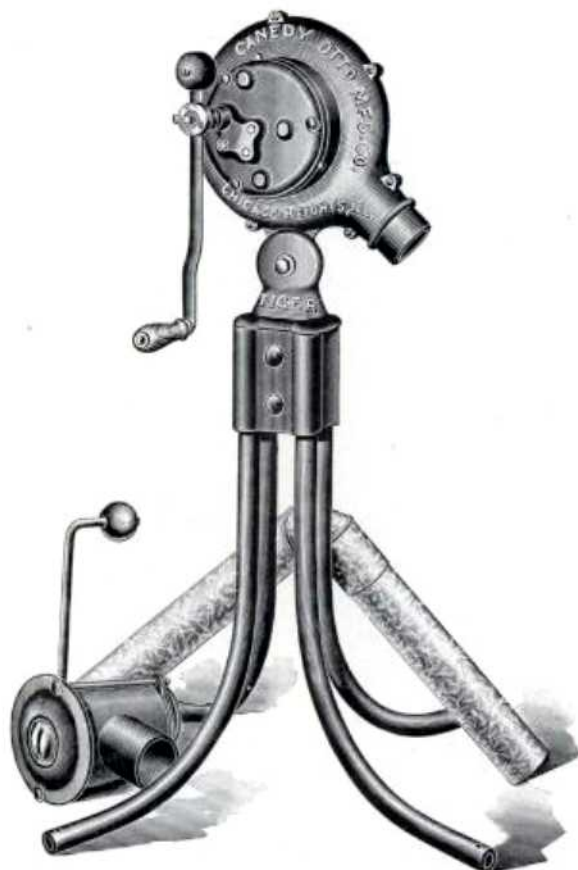


No. 2.

in which the Royal Blower should be placed to the forge, no absolute, unchangeable position is required. The crank turns to right or left, forward or backward, and it is largely a matter of choice with the smith. As few elbows and turns in the piping as possible is best. Illustration No. 1 shows the most popular position, and the pipe as regularly furnished is so intended.

Tiger Blower

Cut Gears, Oil-Tight and Dust-Proof Gear Case. Crank turns forward or backward. A good, serviceable article.



The **Tiger Blower** is made by us to meet the demand for a blower of ordinary construction and less expensive than our higher and better grade of "Royal" Blowers. It gives a good blast, and is neatly finished.

Fan, 11 $\frac{1}{2}$ inches.

Weight, 95 pounds.

PRICE

\$20.00

Western Chief Blowers

In Sizes A, B, C, D, E, F and G.

The cuts on the **following pages** represent our new and improved Steel Frame Blowers—the **best**, the **strongest**, the **neatest** in the world, and in this we challenge the entire field. By having a frame constructed to support the Fan from every side, and to brace each way from the bearings, it stands without trembling when operated, keeping all the bearings in line, working far easier than with a straight, upright frame, either of wood or iron.

In sizes **A** and **D** of these blowers we offer to our patrons **the only** practical combined crank and lever blower made. By an ingenious device we **combine both motions in one machine**, and at the same time **each works independent of the other**. When the crank works, thereby doubling the speed, the lever is idle. As soon as the crank is released it drops to the lower side, and gear wheels stop. This is the only gear motion that will stop (all gears) while the shaft still revolves. **All gears are cut.**

IMPORTANT FEATURES.

Cut Gears.

Solid Angle T Steel Frame.

Compressed Steel Shafts.

The W. C. Tuyere Iron and Fire-pot, with Bowl Top and Goose Nest.

Steel Friction Clutch, positive and noiseless and also adjustable; no leathers or rachets in its construction.

The W. C. Brass Boxes and Oil Cups used throughout.

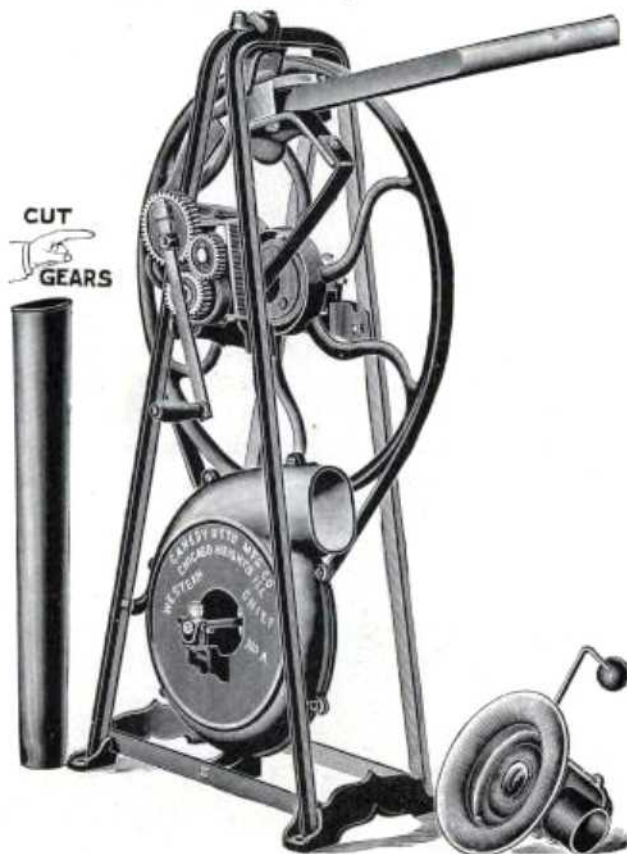
Reversible Nose to Fan Case, for turning the blast to right or left, as desired.

A, B, C and G have 16½-inch Fan. D, E and F have 14½-inch Fan.

Western Chief Blower Size A

(Both Crank and Lever Movement.)

NO BELLOWS THE EQUAL OF THIS.



Fan, 16½ inches.

Fly Wheel, 27 inches.

Weight, 190 pounds.

It is equipped throughout with Brass Boxes and Oil Cups and has Noiseless, Adjustable Steel Friction Clutch. Can be furnished to operate with **right arm** for **left-handed** smiths, when desired.

PRICE

\$32.00

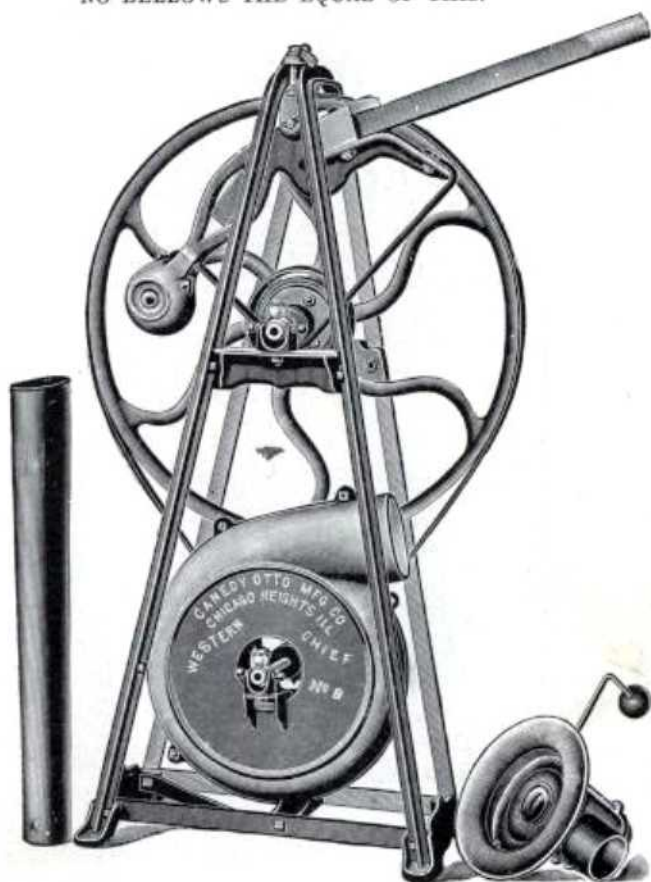
Power Attachment (Pulleys, 7½ x 1¼ inches) \$2.50 Net Extra.

FOR LIST OF REPAIRS, SEE PAGE 131.

Western Chief Blower Size B

(Lever Movement Only.)

NO BELLOWS THE EQUAL OF THIS.



Fan, 16½ inches.

Fly Wheel, 27 inches.

Weight, 180 pounds.

Is equipped throughout with Brass Boxes and Oil Cups, has Noiseless, Adjustable Steel Friction Clutch. Can be furnished to operate with **right arm** for **left-handed** smiths, when desired.

PRICE

\$27.00

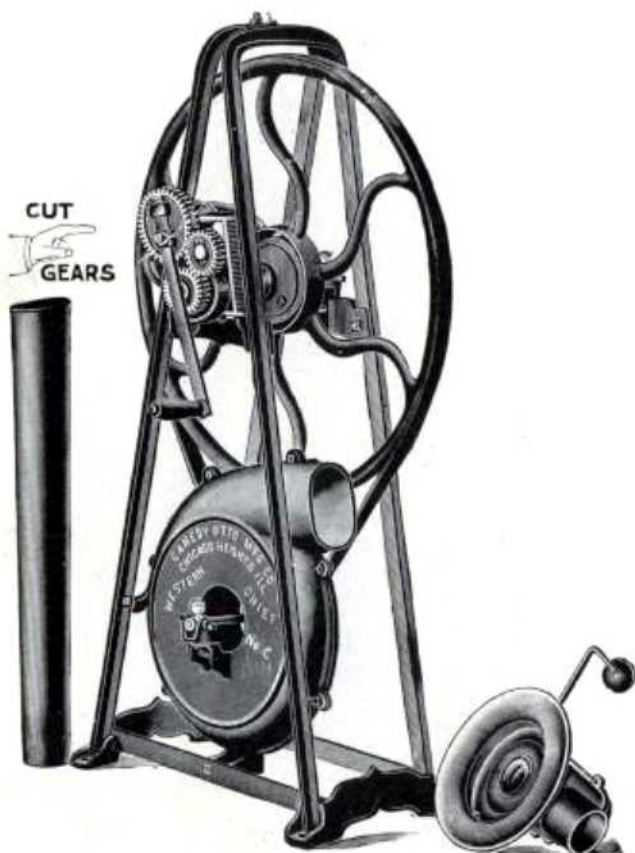
Power Attachment (Pulleys, 7½ x 1¾ inches) \$2.50 Net Extra.

FOR LIST OF REPAIRS, SEE PAGE 131.

Western Chief Blower Size C

(Crank Movement Only.)

NO BELLOWS THE EQUAL OF THIS.



Fan, 16½ inches.

Fly Wheel, 27 inches.

Weight, 165 pounds.

It is equipped throughout with Brass Boxes and Oil Cups. As soon as crank is released it drops to lower side and gear wheels stop. Can be furnished to operate with **right arm** for **left-handed** smiths, when desired.

PRICE

\$27.00

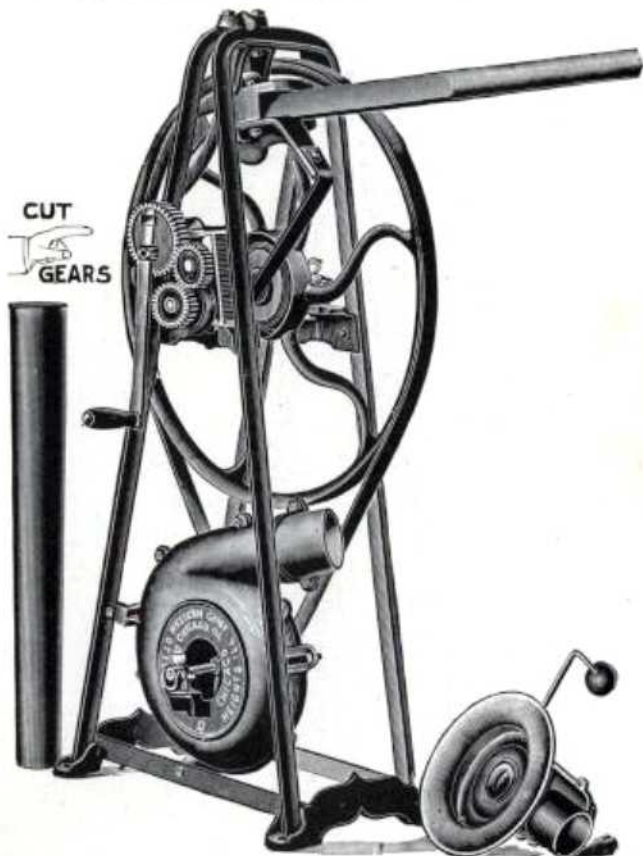
Power Attachment (Pulleys, 7½ x 1¼ inches) \$2.50 Net Extra.

FOR LIST OF REPAIRS, SEE PAGE 131.

Western Chief Blower Size D

(Both Crank and Lever Movement.)

NO BELLOWS THE EQUAL OF THIS.



Fan, 14½ inches.

Fly Wheel, 27 inches.

Weight, 185 pounds.

Is equipped throughout with Brass Boxes and Oil Cups and Noiseless, Adjustable Steel Friction Clutch. It has both crank and lever movement, which work independent of each other.

PRICE

\$28.50

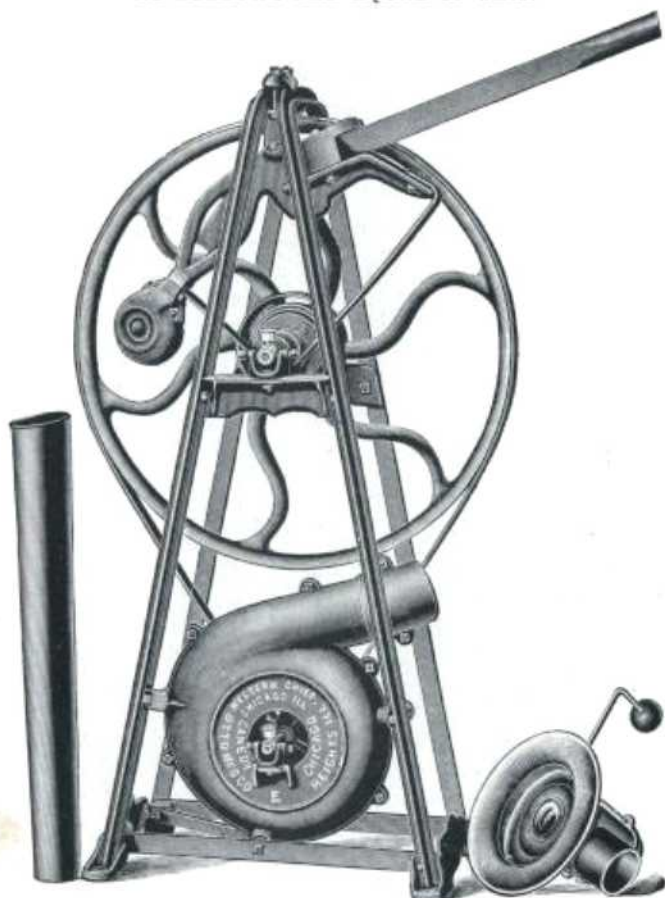
Power Attachment (Pulleys, 7½ x 1¼ inches) \$2.50 Net Extra.

FOR LIST OF REPAIRS, SEE PAGE 133.

Western Chief Blower Size E

(Lever Movement Only.)

NO BELLOWS THE EQUAL OF THIS.



Fan, 14½ inches.
Fly Wheel, 27 inches.

Weight, 175 pounds.

Is equipped throughout with Brass Boxes and Oil Cups and has Noiseless, Adjustable Steel Friction Clutch.

PRICE **\$23.50**

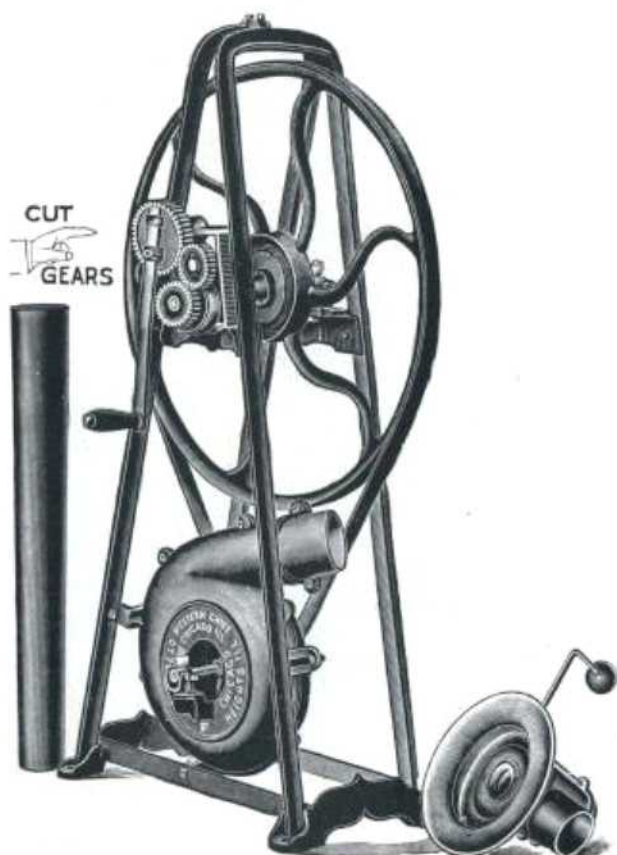
Power Attachment (Pulleys, 7½x1¼ inches) \$2.50 Net Extra.

FOR LIST OF REPAIRS SEE PAGE 133.

Western Chief Blower Size F

(Crank Movement Only.)

NO BELLOWS THE EQUAL OF THIS.



Fan, 14 $\frac{1}{2}$ inches.

Fly Wheel, 27 inches.

Weight, 160 pounds.

It is equipped throughout with Brass Boxes and Oil Cups. As soon as crank is released it drops to lower side, and gear wheels stop.

PRICE

\$23.50

Power Attachment (Pulleys, 7 $\frac{1}{2}$ x 1 $\frac{3}{4}$ inches) \$2.50 Net Extra.

FOR LIST OF REPAIRS, SEE PAGE 133.

Western Chief Blower Size G

(Crank Movement Only.)

THE ONLY SUCCESSFUL BIG-WHEEL BLOWER.



Fan, 16½ inches. Fly Wheel, 36 inches. Weight, 180 pounds.

Pipe and Tuyere Iron furnished with every Machine.

A very powerful blast. By the use of countershaft, this 36-inch Wheel runs the Fan at same speed as other 48-inch wheel blowers, and also admits of looser belts without slipping. It takes but little room and runs very easily. Is equipped throughout with Brass Boxes and Oil Cups. The crank is adjustable (long or short) to suit operator's arm. Can be furnished to operate with **right arm** for **left-handed** smiths, when desired.

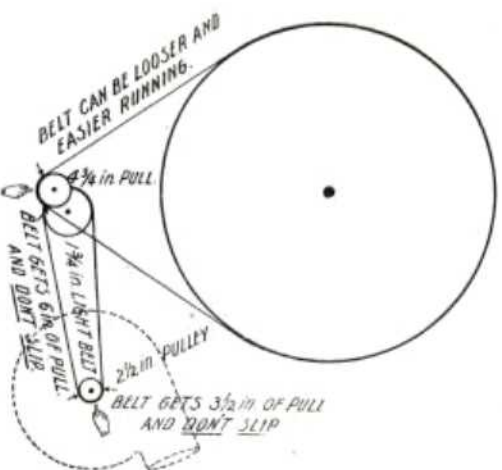
PRICE

\$35.00

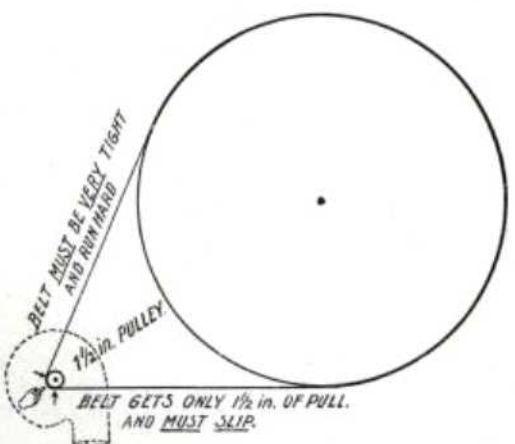
FOR LIST OF REPAIRS, SEE PAGE 135.

THE RIGHT AND WRONG PRINCIPLE

As Applied to Big-wheel Blowers



The Way Western Chief, Size G, is Built.
(With Countershaft.)



The Way Others are Built.

Just a Common Blower

We call it simply "SIZE W"



Fan, 16 inches.

Weight, 160 pounds.

PRICE (complete as illustrated) . . . \$19.00

It is made with crank movement only. It is not modern nor up to date in any respect, and no special guarantee beyond ordinary adaptability is placed upon it.

Royal Fire-pot Tuyere Iron

A large, heavy, solid iron Fire-pot, with side and center blast Tuyere Ball.



Measures
8 x 9 $\frac{1}{2}$ x 4 inches
inside.

NEEDS NO
CLAY.

Weight, 50 pounds.
Diameter of Inlet,
3 inches.

PRICE . \$5.00

Western Chief Tuyere Iron



This view shows the Extension Top or Bowl as applied to the Tuyere Iron **with the Goose Nest off**. In this Bowl the fire clay is built up in the usual manner, making a large, roomy, perfect fire-pot.

This view shows the Tuyere Iron **after the Goose Nest is placed in position**. This Nest rests on the clay to prevent its falling or crumbling, and protects it from all damage while working in the fire.



Weight, 40 pounds.

Diameter of inlet, 3 inches.

PRICE \$2.50

Western Chief Countershafts

For Pressure Blowers, Etc.



SIZE	Driving Pulley		Tight and Loose Pulleys		Diameter of Shaft	Weight	PRICE
	Diameter	Width	Diameter	Width			
P 1	10 $\frac{3}{4}$ in.	2 $\frac{1}{2}$ in.	4 in.	2 in.	$\frac{7}{8}$ in.	50 lbs.	\$ 8.00
P 3	14 "	2 $\frac{3}{4}$ "	6 "	2 $\frac{1}{2}$ "	1 $\frac{1}{8}$ "	60 "	12.00
P 5	18 "	3 $\frac{1}{2}$ "	7 "	3 $\frac{3}{4}$ "	1 $\frac{1}{4}$ "	75 "	16.00

Western Chief Cast-Iron Blast Gates



Outside Diameter	Weight	PRICE
2 $\frac{1}{2}$ inches	3 pounds	\$1.25
3 "	5 "	1.50
4 "	6 "	1.75
4 $\frac{1}{2}$ "	9 $\frac{1}{2}$ "	2.00
5 "	11 "	2.25
6 "	15 "	2.50
7 $\frac{1}{2}$ "	18 $\frac{1}{2}$ "	3.25
8 "	23 "	3.50

Western Chief Power Blowers

FAN BLOWER No. F2

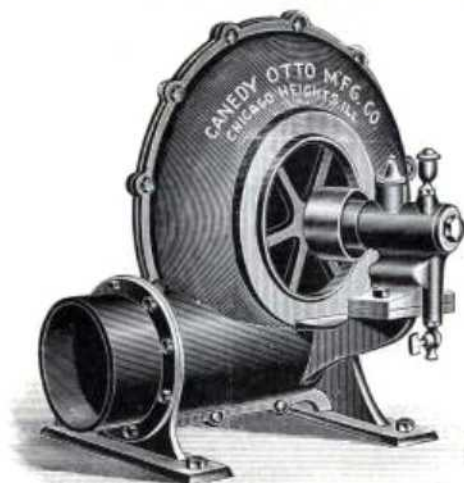
This is a light, neat, power Fan-Blower, very desirable for ventilating purposes, and has capacity for two or three forge fires. Suitable for light belting and ordinary use. Has $1\frac{3}{4}$ -inch pulley for belt connections.

Size,	16 $\frac{1}{2}$ inches
Weight,	55 lbs.
Revolutions,	1,500 to 2,000
Price,	\$13.00



SMALL PRESSURE BLOWERS

For Forge Fires, Etc.



These Blowers are adapted to forge fires and small, light cupola work. They are very strong and durable, smooth running, and handsome in appearance. Sizes P3, P4 and P5 have grease cup in addition to oil cup, so that should oil cup run dry the grease cup will continue to lubricate and prevent heating. Built for service.

No. of Blower.	Height in inches.	Diameter of Inlet.	Diameter of Outlet.	Diameter of Pulley.	Face of Pulley.	Revolutions per min. 2-oz. Blast for Boiler Fires.	Revolutions per min. 4-oz. Blast for Forge Fires.	No. of Forge Fires.	Sq. ft. of Boiler Grate surface supplied by Blower.	Weight, lbs.	H.P. Required, about	PRICE.
P 1	10	3 $\frac{1}{4}$	2 $\frac{3}{4}$	1 $\frac{7}{8}$	1 $\frac{1}{4}$	3675	4640	1	2	15	$\frac{1}{4}$	\$12.00
P 2	15	4 $\frac{1}{2}$	4 $\frac{1}{4}$	2	2	3000	4000	2	5	35	$\frac{1}{2}$	18.00
P 3	18	5 $\frac{1}{4}$	4 $\frac{3}{4}$	3	2	2600	3600	4	6	50	1	20.00
P 4	20	6 $\frac{1}{2}$	5 $\frac{3}{4}$	3 $\frac{1}{2}$	2 $\frac{1}{2}$	2300	3200	5	8	70	1 $\frac{1}{4}$	28.00
P 5	24	7	7 $\frac{1}{2}$	4 $\frac{3}{8}$	3 $\frac{1}{4}$	1928	2680	7	10	105	1 $\frac{3}{4}$	33.00



NOTICE

DON'T leave us to guess at what is wanted on your orders.

If a FORGE, that is listed with and without Hoods, Tanks, etc., state the way you want it.

If a BLOWER, be explicit on essential points: Names and Sizes.

If a DRILL, state whether wanted *with* or *without* pulleys; also whether CHUCK shall be with $\frac{1}{2}$ -inch or $\frac{41}{64}$ -inch hole.

A little care in these matters will save delays, errors, disappointments.

Western Chief D R I L L S

Pages 94 to 109

(Repair List in Back of Book.)

The most complete line of Post Drills (when quality, desirability and general value are considered) that is upon the market.

Western Chief Drill No. 0 $\frac{1}{2}$

A SINGLE GEARED, HAND-FEED DRILL.



Our No. 0 $\frac{1}{2}$ Drill is a Neat,
Durable Article, but is
Hand-feed Only.

Bores 0 to $\frac{3}{4}$ inch.

Drills to center of 12-inch Circle.

Up and Down run of Spindle, $2\frac{3}{4}$
inches.

Up and Down run of Table, $9\frac{1}{2}$ inches.

Greatest distance from Table to Spindle,
 $9\frac{1}{2}$ inches.

Weight, 50 pounds.

Light Wheel Rims can be drilled by
removing table and using forked support
as a wheel holder.

BEST MATERIALS IN ITS CONSTRUCTION.

PRICE \$5.50

FOR LIST OF REPAIRS, SEE PAGE 137.

Western Chief Drill No. 0

NEAT, LIGHT AND DURABLE.



Our No. 0 Drill is Simple,
yet Complete, and for
Light Work is
Very Satisfactory.

Self-feed, Changeable Speed.

Fast and Slow speed.

Bores 0 to $\frac{1}{4}$ inch.

Drills to center of 12-inch Circle.

Up and Down run of Spindle, $2\frac{3}{4}$
inches.

Up and Down run of Table, $9\frac{1}{2}$
inches.

Greatest distance from Table to
Spindle, $9\frac{1}{2}$ inches.

Takes bits with $\frac{1}{2}$ -inch shanks.

Weight, 75 pounds.

Light Wheel Rims can be drilled by
removing table and using the forked
support as a wheel holder.

THE BEST MATERIAL IS USED IN ITS CONSTRUCTION.
STEEL MANDREL, SHAFTS AND FEED SCREW.

PRICE \$7.50

FOR LIST OF REPAIRS, SEE PAGE 137.

Western Chief Drill No. 00

A RELIABLE DRILL AT THE LOWEST COST



Two speeds, Fast and Slow.

Self-feed, Changeable Speed.

Drills to center of 15-inch Circle.

Bores from 0 to $1\frac{1}{4}$ inches.

Up and Down run of Spindle, 3 inches.

Up and Down run of Table, $10\frac{3}{4}$ inches.

Greatest distance from Spindle to Table, 13 inches.

Size of Pulleys for power, $8 \times 2\frac{1}{2}$ inches, should run 200 revolutions per minute.

Spindle bored for $\frac{1}{2}$ or $\frac{3}{4}$ inch Shank Bits. ALWAYS STATE SIZE WHEN ORDERING.

Weight, 110 pounds.

Light Wheel Rims can be drilled by removing table and using forked support as a wheel holder.

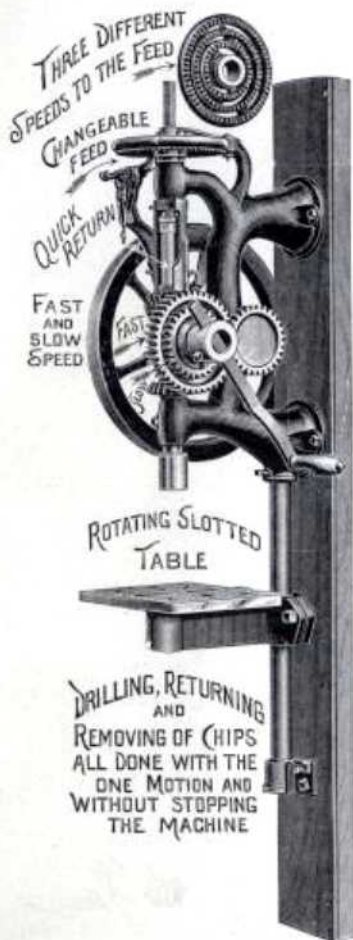
PRICE

\$10.00

Power attachment, \$2.00 net extra.

FOR LIST OF REPAIRS, SEE PAGE 139.

Western Chief Drill No. 1



A Changeable Speed, Changeable Feed, Quick Return Drill

Drills to center of 15-inch Circle.

Bores 0 to 1 $\frac{1}{2}$ inches.

Up and Down run of Spindle, 2 $\frac{3}{4}$ inches.

Up and Down run of Table, 13 inches.

Greatest distance from Table to Spindle, 13 inches.

Size of Pulleys for Power, 8 x 2 $\frac{1}{8}$ inches. Should run 200 revolutions per minute.

Spindle bored for $\frac{1}{2}$ or $\frac{1}{4}$ -inch shank bits. ALWAYS STATE SIZE WHEN ORDERING.

Weight, 130 pounds.

Wheel Rims can be drilled by removing table and using forked support as a wheel holder.

PRICE \$15.00

Power Attachment, \$2.00 Net Extra.

FOR LIST OF REPAIRS, SEE PAGE 141.

Western Chief Drill No. 2

A First-class Drill at a very Reasonable Price.



Self-feed, with three different speeds to feed: slow, medium and fast.

Double Geared for slow or fast speed.

Slotted, Rotating, Swinging Table.

Drills to center of 15-inch Circle.

Bores 0 to 1 $\frac{1}{2}$ inches.

Up and Down run of Spindle, 3 $\frac{1}{4}$ inches.

Up and Down run of Table, 13 inches.

Greatest distance from Table to Spindle, 13 inches.

Size of Pulleys for power, 8 x 2 $\frac{1}{8}$ inches. Should run 200 revolutions per minute.

Spindle bored for $\frac{1}{2}$ or $\frac{1}{4}$ -inch shank bits. ALWAYS STATE SIZE WHEN ORDERING.

Weight, 125 pounds.

Wheel Rims can be drilled by removing table and using forked support as a wheel holder.

PRICE

\$14.50

Power Attachment, \$2.00 Net Extra.

FOR LIST OF REPAIRS, SEE PAGE 141.

Western Chief Drill No. 3

Not a Cheap, Babbitted Affair, but a Successful, Self-feed Drill, Built on Mechanical Principles.



Automatic Self-feed.

Drills to center of $1\frac{1}{2}$ -inch Circle.

Bores 0 to 1 inch.

Up and Down run of Spindle, $3\frac{1}{2}$ inches.

Up and Down run of Table, 11 inches.

Greatest distance from Table to Spindle, $10\frac{1}{2}$ inches.

Size of Pulleys for Power, $8 \times 2\frac{1}{8}$ inches. Should run 200 revolutions per minute.

Spindle bored for $\frac{1}{2}$ or $\frac{3}{4}$ -inch shank bits. ALWAYS STATE SIZE WHEN ORDERING.

Weight, 95 pounds.

Wheel Rims can be drilled by removing table and using forked support as a wheel holder.

PRICE \$10.00

Power Attachment, \$2.00 Net Extra.

FOR LIST OF REPAIRS, SEE PAGE 143.

Western Chief Drill No. 7

CUT GEARS ONLY USED
IN THIS DRILL.

DESCRIPTION.

Automatic Self-feed.

Fast and slow speed, instant change.

Drills to center of 21-inch Circle.

Bores 0 to 1 1/2 inches.

Up and Down run of Spindle, 5 inches.

Up and Down run of Table, 16 1/2 inches.

Greatest distance from Table to Spindle, 19 1/2 inches.

Size of Pulleys for Power, 10 3/4 x 2 1/2 inches. Should run 175 to 180 revolutions per minute.

Spindle bored for 1/2 or 3/4-in. shank bits. ALWAYS STATE SIZE WHEN ORDERING.

Weight.

Hand power, 275 pounds.

Pulley power, 295 pounds.

The shaft on this drill (when ordered hand power) is left extended to receive pulleys any time thereafter.

Wheel Rims can be drilled by removing table and using the forked support as a wheel holder. A special Wheel Holder Attachment, as illustrated, is furnished, when ordered, for \$2.00 extra

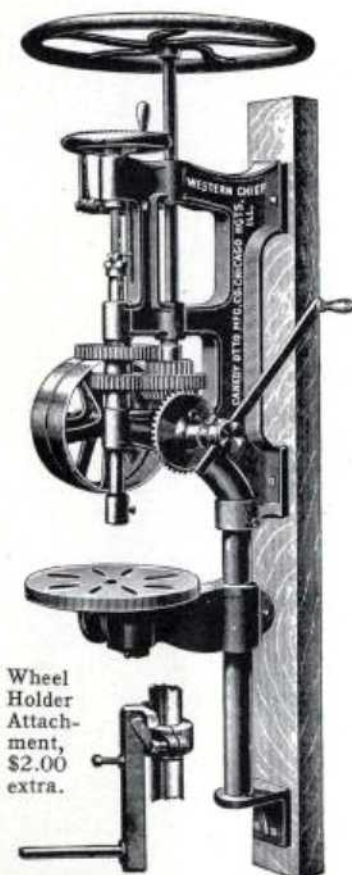
Wheel
Holder
Attach-
ment,
\$2.00
extra.

PRICE { Without Pulleys, Hand Power only . . . \$33.50
With Pulleys (as illustrated) . . . 37.50

FOR LIST OF REPAIRS, SEE PAGE 147.

Western Chief Drill No. 12

CUT GEARS ONLY, USED IN THIS DRILL.



Wheel
Holder
Attach-
ment,
\$2.00
extra.

DESCRIPTION.

Automatic Self-feed.

Fast and slow speed, instant change.

Drills to center of 16-inch Circle.

Bores 0 to $1\frac{1}{2}$ inches.

Up and Down run of Spindle, 4 inches.

Up and Down run of Table, $15\frac{1}{2}$ inches.

Greatest distance from Table to Spindle, 16 inches.

Size of Pulleys for Power, $10\frac{3}{4}$ x $2\frac{1}{2}$ inches. Should run 175 to 180 revolutions per minute.

Spindle bored for $\frac{1}{2}$ or $\frac{3}{4}$ -inch shank bits. ALWAYS STATE SIZE WHEN ORDERING.

Weight, Hand power . . . 215 lbs.
Weight, Pulley power . . . 235 lbs.

The shaft on this drill (when ordered hand power) is left extended to receive pulleys any time thereafter.

Wheel Rims can be drilled by removing table and using forked support as a wheel holder. A Special Wheel Holder Attachment, as illustrated, is furnished, when ordered, for \$2.00 extra.

PRICE { Without Pulleys, Hand Power Only . . . \$27.50
 With Hand and Pulley Power Attachments (as illustrated) 31.50

FOR LIST OF REPAIRS, SEE PAGE 147.

Western Chief Drill No. 15

Cut Gears. Back Geared. Self-feed. Changeable Speed.



Drills to center of 19-inch Circle.
Bores 0 to 1 1/2 inches.

Up and Down run
of Spindle, 4 inches.

Up and Down run
of Table, 11 1/4 inches.

Greatest distance from
Table to Spindle, 13 1/4
inches.

Size of Pulleys, 8 x 2 1/2
inches. Should run 200
revolutions per minute.

Spindle bored for 1/2 or 3/4-in.
shank bits. **ALWAYS
STATE SIZE WHEN
ORDERING.**

Weight.

Hand Power, . . . 180 pounds.

Hand and Power, . 190 pounds.

It has two speeds, **Fast** and
Slow, and for heavy drilling the slow speed
is instantly obtained by inserting the crank
handle in rim of fly wheel.

The Shaft on this Drill (when ordered Hand
Power) is left extended, to receive Pulleys at
any time thereafter.

Wheel Rims can be drilled by removing
the table and using the forked support as a
Wheel Holder. A special Wheel Holding
Attachment, as illustrated, is furnished, when
desired, for \$2.00 extra.

PRICE	{ Hand Power (as illustrated)	\$17.50
	{ Hand and Pulley Power	19.50

FOR LIST OF REPAIRS, SEE PAGE 145.

Western Chief Drill No. 14

DESCRIPTION.

Straight and Bevel Gears are Cut. Fast and slow speed, instant change. Horizontal, Gear driven, positive self-feed, changeable instantly to fast, slow or medium, as desired. Raise and lower device to table.

It has automatic quick return, allowing rapid withdrawal of the bit at will, without **stopping** or **reversing** machine. Or, it can be set to drill any depth desired and will **automatically** (whether running by power or hand) reverse itself, withdraw the bit and start drilling again and again indefinitely, all without stopping the motion of the machine, or turning it backward. This feature is independent of Drill, and need not be used unless desired.

Drills to center of 21-inch Circle.
Bores, 0 to 1½ inches.

Up and Down run of Spindle, 4 inches.

Up and Down run of Table, 16½ inches.

Greatest distance from Table to spindle, 18 inches.

Size of Pulleys, 10¼ x 2½ inches.
Should run 175 to 180 revolutions per minute.

Spindle bored for ½ or ⅜-inch shank bits. **ALWAYS STATE SIZE WHEN ORDERING.**

Weight (Hand Power), . . 295 lbs.

Weight (Hand and Power), 315 lbs.

Wheel Rims can be drilled by removing table and using the forked support as a wheel holder. A special Wheel Holder Attachment, as illustrated, is furnished, when ordered, for \$2.00 extra.

The Shaft on this drill (when ordered Hand Power) is left extended, to receive pulleys at any time thereafter.

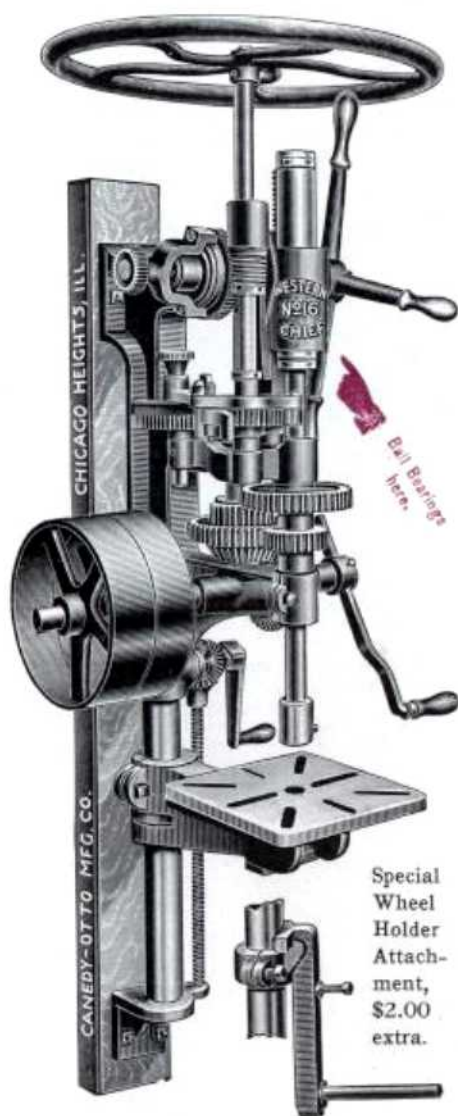
PRICE

Hand Power only . . .	\$38.50
Both Hand Power and Pulley Power (as illustrated) . .	42.50

**FOR LIST OF REPAIRS,
SEE PAGE 149.**

Wheel
Holder
Attach-
ment,
\$2.00
extra.

Western Chief Drill No. 16



A Post Drill with the fine features of Machine Shop Floor Drills.

Straight and Bevel Gears are cut.

Fast and slow speed, instant change.

Hand Lever Feed, also Horizontal Gear-driven, positive self-feed, changed to fast, slow or medium speed instantly. These feeds work independent of each other, and bit is lifted quickly.

Raise and lower device to Table.

Drills to center of 24-inch Circle.

Bores 0 to 1 1/2 inches.

Up and down run of Spindle, 8 1/2 inches.

Up and Down run of Table, 15 1/2 inches.

Greatest distance from Table to Spindle, 18 1/2 inches.

Size of Pulleys, 10 3/4 x 2 1/2 inches. Should run 175 to 180 revolutions per minute.

Spindle bored for 1/2 or 3/4-inch shank bits. **ALWAYS STATE SIZE WHEN ORDERING.**

Weight (Hand Power), 340 lbs.
Weight (Hand and Power), 360 lbs.

Wheel Rims can be drilled by removing table and using the forked support as a wheel holder.

When ordered hand power only, the shaft is left extended, so that Pulleys may be placed at any time.

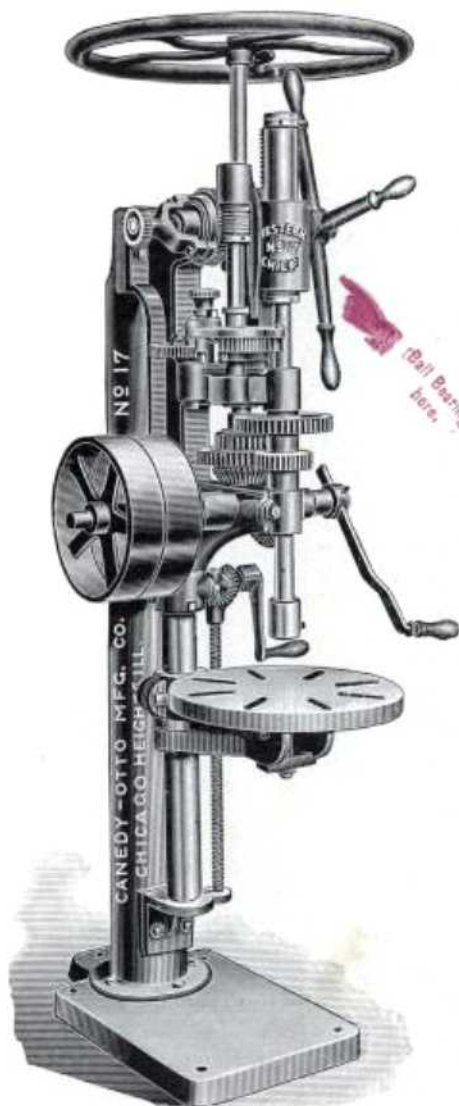
PRICE

Hand Power only . . .	\$42.50
With Pulleys, as illustrated	46.50

Special
Wheel
Holder
Attach-
ment,
\$2.00
extra.

FOR LIST OF REPAIRS, SEE PAGE 151.

Western Chief Drill No. 17



A Finished Floor Drill, both Hand and Pulley Power. Straight and Bevel Gears are cut.

Fast and slow speed, instant change.

Hand Lever Feed, also Horizontal, Gear Driven, Positive self-feed, changed to fast, slow or medium instantly. These feeds work independently of each other, and bit is lifted quickly.

Raise and lower device to Table.

Drills to center of 24-inch Circle.

Bores 0 to 1 1/2 inches.

Up and Down run of Spindle, 8 1/2 inches.

Up and Down run of Table, 15 1/2 inches.

Greatest distance from Table to Spindle, 18 1/2 inches.

Height of Machine, 71 inches.

Floor space, 15 x 26 inches.

Size of Pulleys, 10 1/4 x 2 1/2 inches. Should run 175 to 180 revolutions per minute.

Spindle bored for 1/2 or 3/4-inch shank bits. **ALWAYS STATE SIZE WHEN ORDERING.**

When specially ordered we will bore Spindle to receive No. 3 Morse Taper.

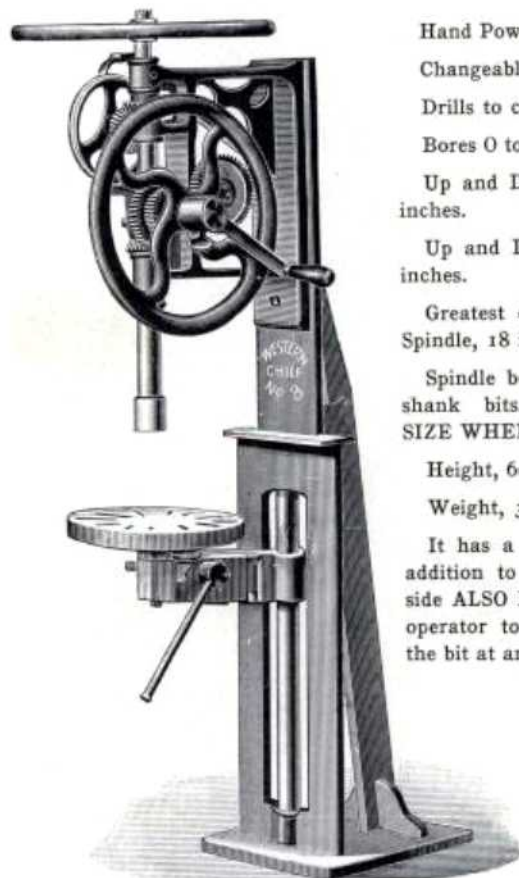
Weight, 560 pounds.

Wheel Rims can be drilled by removing table and using forked support as a wheel holder. Special Wheel Holder Attachment can be furnished for \$2.00 net.

PRICE, Hand and Pulley Power (as illustrated) . . . \$65.00
FOR LIST OF REPAIRS, SEE PAGE 151.

Western Chief Drill No. 8

A Self-feed Hand Drill, Designed for Use Anywhere upon the Floor; no Post or Wall to Attach It to Necessary.



Hand Power only.

Changeable Self-feed.

Drills to center of 23-inch Circle.

Bores 0 to 1 1/2 inches.

Up and Down run of Spindle, 5 inches.

Up and Down run of Table, 20 inches.

Greatest distance from Table to Spindle, 18 inches.

Spindle bored for 1/2 or 3/4-inch shank bits. ALWAYS STATE SIZE WHEN ORDERING.

Height, 60 inches.

Weight, 380 pounds.

It has a slotted table, which in addition to swinging from side to side ALSO ROTATES, enabling the operator to bring his work under the bit at any place desired.

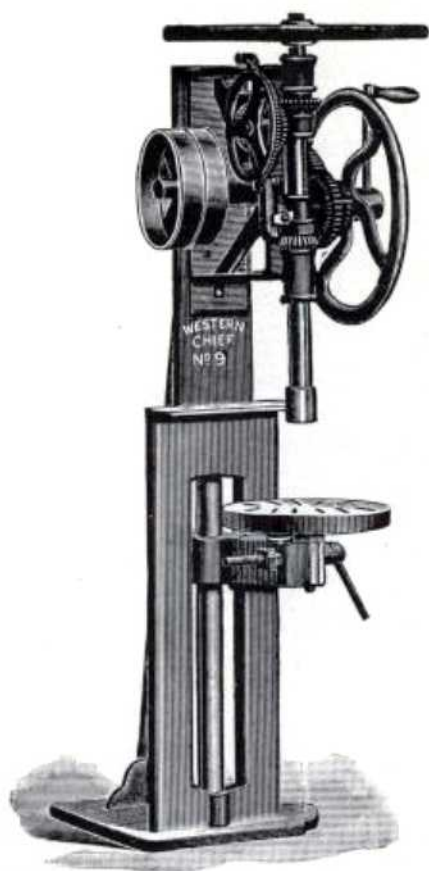
A second speed for heavy work is readily obtained by inserting the crank handle into rim of fly wheel.

PRICE

\$30.00

Western Chief Drill No. 9

Combined Hand and Power Self-feed Floor Drill.



Both Hand and Pulley Power.

Changeable Self-feed.

Drills to Center of 23-inch Circle.

Bores 0 to 1 $\frac{1}{2}$ inches.

Up and Down run of Spindle, 5 inches.

Up and Down run of Table, 20 inches.

Greatest distance from Table to Spindle, 18 inches.

Spindle bored for $\frac{1}{2}$ or $\frac{3}{8}$ -inch shank bits. ALWAYS STATE SIZE WHEN ORDERING.

Height, 60 inches.

Weight, 390 pounds.

It has a slotted table, which in addition to swinging from side to side ALSO ROTATES, enabling the operator to bring his work under the bit at any place desired.

A second speed for heavy work is readily obtained by inserting the crank handle into rim of fly wheel.

PRICE

\$35.00

Western Chief Drill Chucks

Nos. 1 and 2

Makes it possible to use bits having $\frac{1}{2}$ -inch shanks in a drill, the mandrel of which is bored for $\frac{41}{64}$ -inch, and **Vice Versa**.



When Drill Spindles are bored $\frac{1}{2}$ -inch, and bits on hand are $\frac{41}{64}$ -inch shank; or spindle is bored $\frac{41}{64}$ -inch and bits on hand have $\frac{1}{2}$ -inch shank; or you have bits on hand with both size shanks, these chucks provide a way out of the trouble.

CHUCK No. 1

Arbor $\frac{1}{2}$ -inch, Hole $\frac{41}{64}$ -inch \$2.00

CHUCK No. 2

Arbor $\frac{41}{64}$ -inch, Hole $\frac{1}{2}$ -inch \$2.00

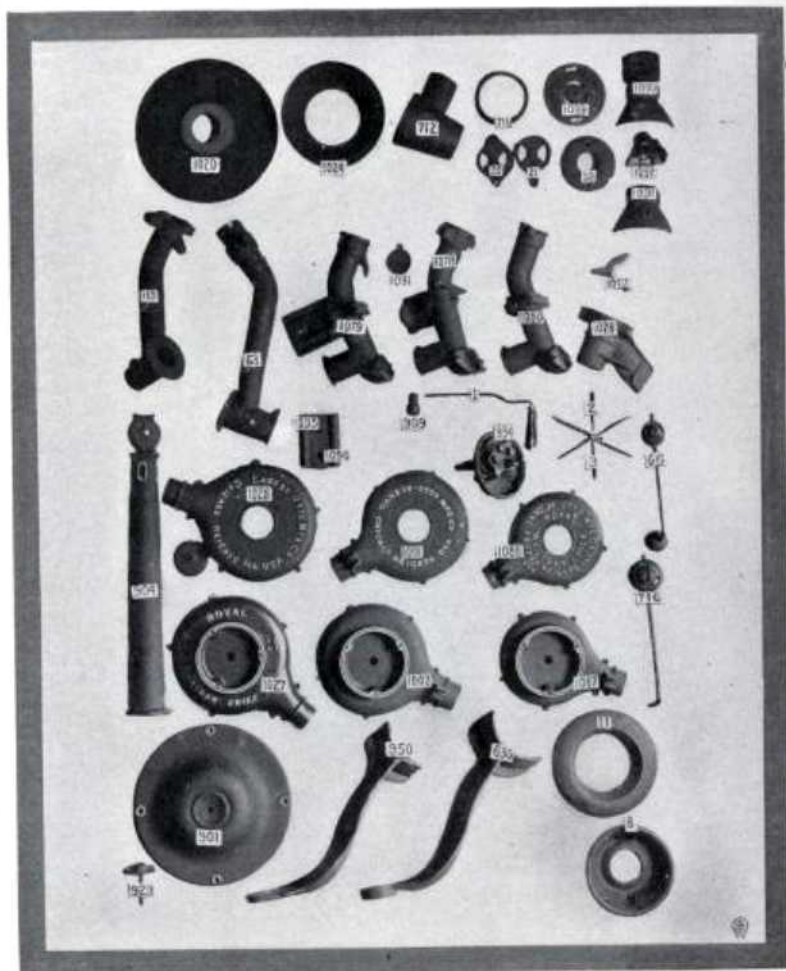
Repairs

FOR ALL

FORGES
BLOWERS
and DRILLS

will be found in
following pages

Royal Forges and Blowers



New Style



New Style



New Style

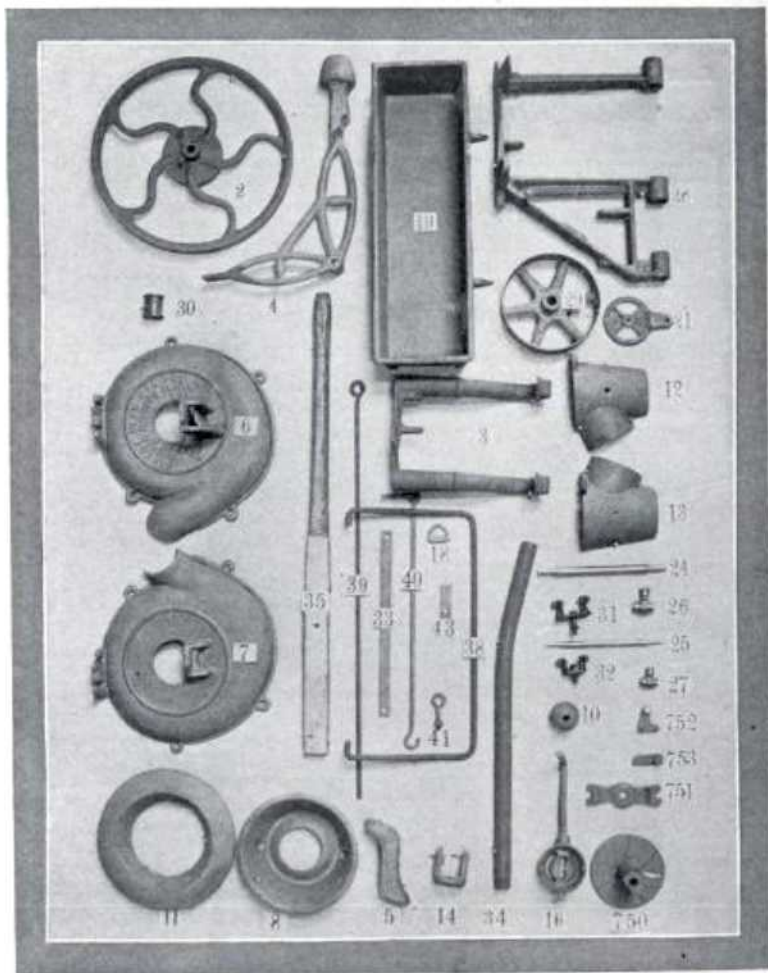
Repair List of Royal Forges and Blowers

No.	When ordering, state Number and Name of Part Wanted.	
1	Crank Handle, all Forges and Blowers.....	\$ 0 90
2	Fan, fits Royal Blower, also Nos. 8, 9, 10, 15, 20, 30, 35, 99, 100 and 200 Forges.....	1 75
3	Fan, Nos. 40, 50, 55, 60, 70, 75, 80, 102, 103, 104 & 105 Forges.....	1 50
8	Fire-pot, fits Nos. 100 and 200 Forges (Old Style).....	1 00
9	Square Fire-pot (New Style), fits Nos. 8, 9, 10, 15, 20, 30 and 35 Forges.....	4 00
11	Goose Nest, fits Nos. 100 and 200 Forges (Old Style)....	1 50
20	Ash Door, fits Nos. 10, 15, 20, 30, 35, 100 and 200 Forges..	25
21	Ash Door, fits Nos. 10, 15, 20, 30, 35, 100 and 200 Forges..	25
59	Tuyere Cap, fits Nos. 102, 103, 104, 105 Forges.....	75
63	Blower Tube, fits Nos. 102, 103 Forges.....	4 00
66	Tuyere Ball, fits Nos. 102, 103, 104, 105 Forges.....	50
68	Duck Nest, fits Nos. 102, 103, 103 1/4 Forges.....	1 75
113	Blower Tube, fits Nos. 104, 105 Forges.....	4 00
630	Blower Support, fits Nos. 8 and 9 Forges.....	2 00
711	Tuyere Ring, Nos. 10, 15, 20, 30, 35, 99, 100 & 200 Forges.	40
712	Ash Pot, fits Nos. 10, 15, 20, 30, 35, 99, 100 and 200 Forges.	1 25
716	Tuyere Ball, Nos. 10, 15, 20, 30, 35, 99, 100 & 200 Forges..	50
901	Base, for Royal Blower.....	2 00
904	Pedestal, for Royal Blower.....	2 00
909	Handle Hub, fits all Royal Forges and Blowers.....	50
923	Nut, connecting Pedestal and Base, Royal Blower.....	20
934	Gears with Casing and Yoke Complete, fits Royal Blower and all Royal Forges except No. 76.....	10 00
950	Blower Support, fits Nos. 99, 100 and 200 Forges.....	2 00
1001	Back Fan Side, fits Nos. 10, 15, 20, 30 and 35 Forges.....	3 00
1002	Front Fan Side, fits Nos. 10, 15, 20, 30 and 35 Forges....	3 50
1007	Blower Tube Support, fits Nos. 10, 15, 20, 30 & 35 Forges.	60
1020	Tuyere Plate, fits Nos. 10, 15, 20, 30, 35 Forges (Old Style)	2 50
1024	Fire-pot, fits Nos. 10, 15, 20, 30, 35 Forges (Old Style)...	1 00
1025	Square Fire-pot (New Style), fits Nos. 99, 100 & 200 Forges	3 00
1026	Back Fan Side, Royal Blower, also 8, 9, 99, 100 & 200 Forges	3 00
1027	Front Fan Side, Royal Blower, also 8, 9, 99, 100 & 200 Forges	3 50
1028	Blower Tube, fits Nos. 10, 15, 20, 30 and 35 Forges.....	2 50
1078	Blower Tube, fits Nos. 41 and 61 Forges.....	4 00
1079	Blower Tube, fits Nos. 40, 50, 55, 60, 70 and 75 Forges...	4 00
1080	Blower Tube, fits Nos. 80, 81 and 82 Forges.....	4 00
1081	Ash Door, 40, 50, 55, 60, 70, 75, 80, 102, 103, 104 & 105 Fgs..	25
1086	Back Fan Side, fits Nos. 40, 50, 55, 60, 70, 75, 80, 81, 82, 102, 103, 104, 105 Forges.....	3 00
1087	Front Fan Side, fits Nos. 40, 50, 55, 60, 70, 75, 80, 81, 82, 102, 103, 104, 105 Forges.....	3 50
1090	Leg Bracket (Long), fits Nos. 41 and 61 Forge.....	1 25
1091	Leg Bracket (Short), fits Nos. 41 and 61 Forge.....	1 00
1092	Leg Bracket (Inside), fits Nos. 41 and 61 Forge.....	50
1095	Leg Bracket (Front), fits Nos. 40, 50, 55, 60, 70, 75 Forge.	75
1096	Leg Bracket (Back), fits Nos. 40, 50, 55, 60, 70, 75 Forge.	75
1099	Tuyere Cap, fits Nos. 40, 50, 55, 60, 70, 75, 80, 81 & 82 Fgs.	75

NOTE.—For general Forge parts of Forges Nos. 8 and 9, see repairs for BB & XBB Forges.
For general Forge parts of Nos. 99, 100 and 200, see repairs for AA Forges.
For general Forge parts of Nos. 102 and 103, see repairs for Nos. 2 and 3 Forges.

Western Chief Forges

Nos. 1 and 1½



New Style.

Repair List of Western Chief Forges

Nos. 1 and 1½

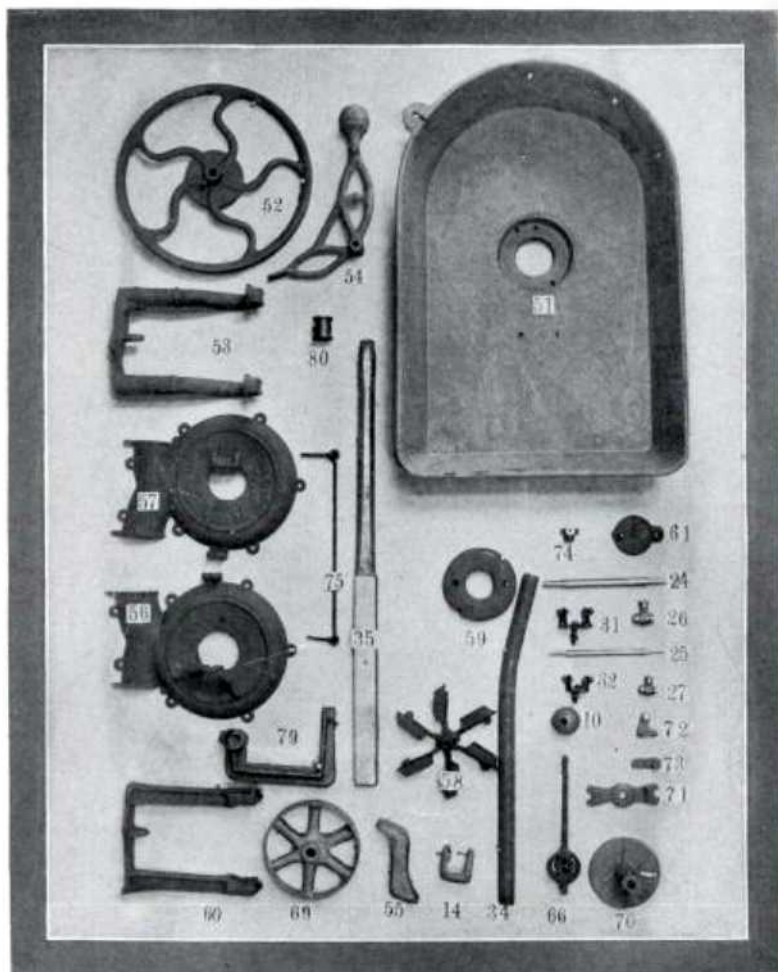
When ordering, give Name of Forge and Number of Part Wanted.

No.	Name of Part.	Price.
1	Hearth (not illustrated), state if for round or square fire-pot	\$12 50
—	Hood (not illustrated)	3 25
2	Fly Wheel	2 50
3	Wheel Hanger	2 00
4	Lever Casting	1 75
5	Lever Bracket	35
6	Fan Side (Pulley Side)	2 50
7	Fan Side	2 50
8	Fire-pot (Old Style)	1 00
10	Ball	10
11	Goose Nest (Old Style)	1 50
12	Ash Pot, Right	50
13	Ash Pot, Left	50
14	Handle Loop	30
16	Tuyere Ball	50
18	Finger Pull	10
19	Water Tank	3 25
21	Ash Door	25
23	Fan (not illustrated)	1 50
24	Fly Wheel Shaft	50
25	Fan Shaft	50
26	Brass Box and Cup (Fly Wheel Shaft)	90
27	Brass Box and Cup (Fan Shaft)	80
28	Power Hanger	2 50
29	Power Pulley	1 75
30	Fan Pulley	30
31	Large Loop (Fly Wheel Shaft)	50
32	Small Loop (Fan Shaft)	40
33	Wheel Bracket Brace	15
34	Leg	30
35	Handle	50
38	Side Rod	35
39	Side Rod Support	25
40	Lever Rod	40
41	Lever Rod Eye	10
43	Clip for Goose Nest	10
750	Clutch Hub	<div style="display: inline-block; vertical-align: middle;"> <div style="display: inline-block; vertical-align: middle;">These</div> <div style="display: inline-block; vertical-align: middle;"> <div style="display: inline-block; vertical-align: middle;">{</div> <div style="display: inline-block; vertical-align: middle;"> <div style="display: inline-block; vertical-align: middle;">1 25</div> <div style="display: inline-block; vertical-align: middle;">75</div> <div style="display: inline-block; vertical-align: middle;">15</div> <div style="display: inline-block; vertical-align: middle;">10</div> </div> </div> </div>

Long Belts, \$1.00. Pull Straps, 40 cents each.

Western Chief Forges

Nos. 2, 3, 3 $\frac{1}{4}$ and 3 $\frac{1}{2}$



New Style.

Repair List of Western Chief Forges

Nos. 2, 3, 3¼, 3½

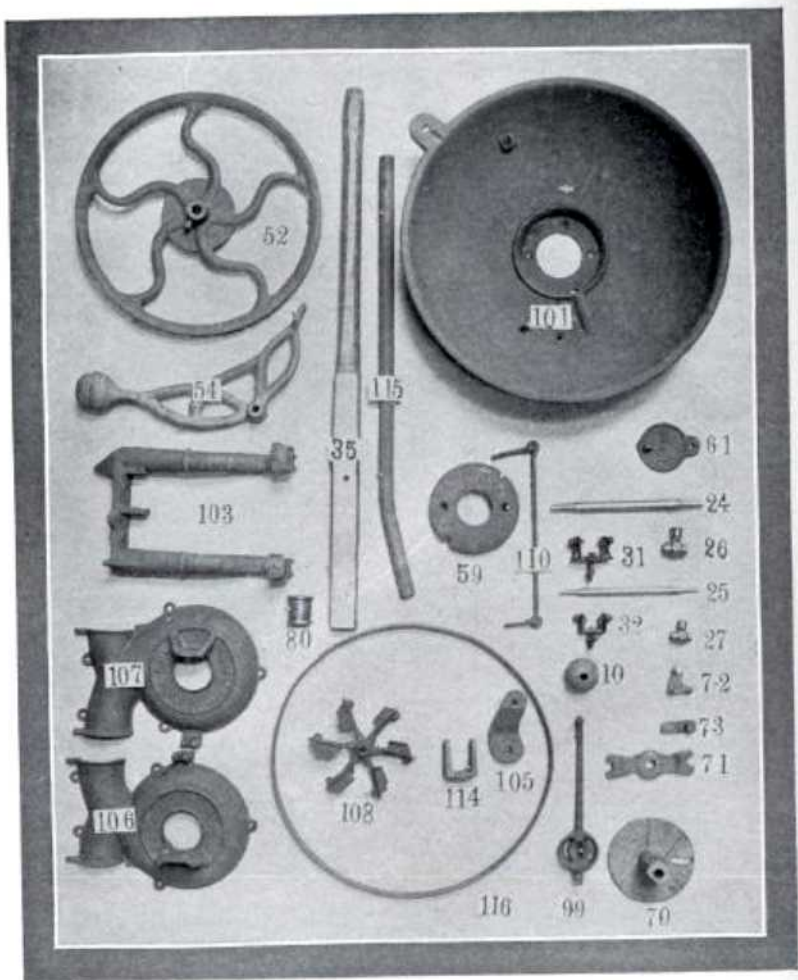
When ordering, give Name of Forge and Number of Part Wanted.

No.	Name of Part.	Price.
—	Shield (No. 2 Forge), not illustrated.....	\$ 0 75
—	Hood (Nos. 3 and 3½ Forge), not illustrated.....	3 00
10	Ball	10
14	Handle Loop.....	30
24	Fly Wheel Shaft.....	50
25	Fan Shaft.....	50
26	Brass Box and Cup (Fly Wheel Shaft).....	90
27	Brass Box and Cup (Fan Shaft).....	80
31	Large Loop (Fly Wheel Shaft).....	50
32	Small Loop (Fan Shaft).....	40
34	Leg	30
35	Handle	50
51	Hearth	6 00
52	Fly Wheel.....	2 25
53	Wheel Hanger.....	2 00
54	Lever Casting.....	1 50
55	Lever Bracket.....	30
56	Fan Side (Pulley Side).....	2 25
57	Fan Side.....	2 25
58	Fan	1 25
59	Tuyere Cap.....	75
60	Power Hanger.....	2 00
61	Ash Door.....	20
66	Tuyere Ball.....	50
68	Ducks Nest.....	1 75
69	Power Pulley.....	1 75
70	Clutch Hub.....	<div style="display: inline-block; vertical-align: middle;"> <div style="display: inline-block; vertical-align: middle;"> <div style="display: inline-block; vertical-align: middle;">These</div> <div style="display: inline-block; vertical-align: middle;">Form</div> <div style="display: inline-block; vertical-align: middle;">Clutch</div> <div style="display: inline-block; vertical-align: middle;">Complete.</div> </div> <div style="display: inline-block; vertical-align: middle; font-size: 3em; margin: 0 10px;">{</div> <div style="display: inline-block; vertical-align: middle;"> <div style="display: inline-block; vertical-align: middle;">.....</div> <div style="display: inline-block; vertical-align: middle;">.....</div> <div style="display: inline-block; vertical-align: middle;">.....</div> <div style="display: inline-block; vertical-align: middle;">.....</div> </div> </div>
71	Clutch Lever.....	
72	Clutch Dog.....	
73	Clutch Piece.....	
74	Brass Box, Old Style.....	80
75	Lever Rod.....	40
79	Shifter Bracket.....	90
80	Fan Pulley	30

Long Belts, 75 cents. Pull Straps, 40 cents each.

Western Chief Forges

Nos. 4, 5 and 5½



Repair List of Western Chief Forges

Nos. 4, 5, 5½

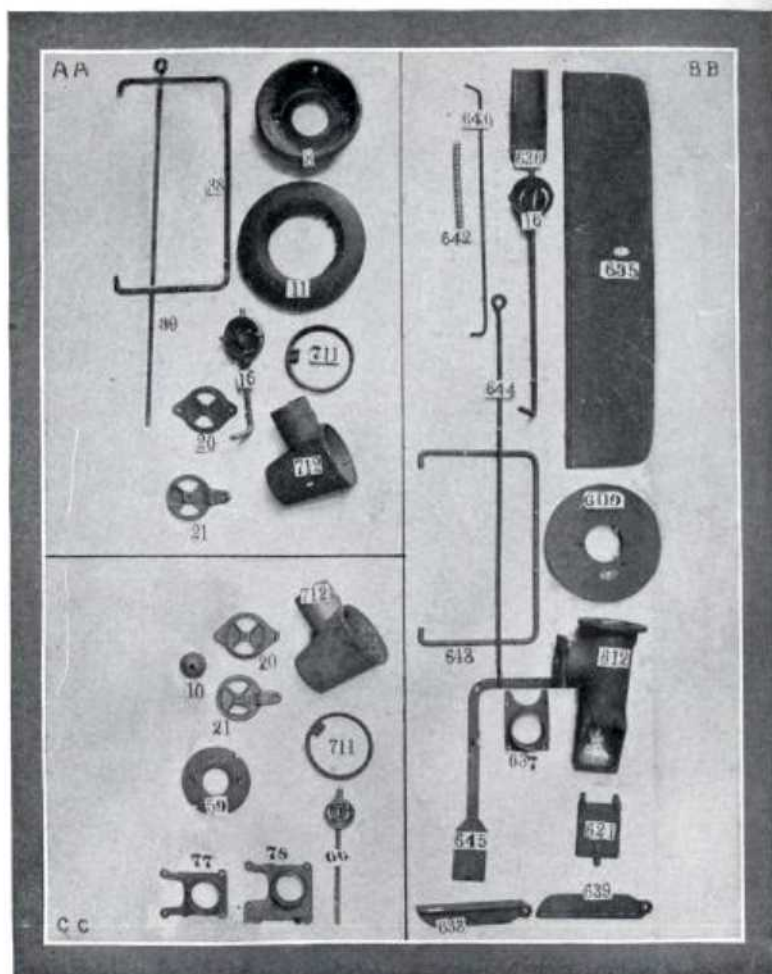
When ordering, give Name of Forge and Number of Part Wanted.

No.	Name of Part.	Price.
—	Shield (No. 4 Forge), not illustrated.....	\$ 0 60
—	Hood (No. 5 Forge), not illustrated.....	2 75
—	Hood (No. 5½ Forge), not illustrated.....	4 00
10	Ball	10
24	Fly Wheel Shaft.....	50
25	Fan Shaft.....	50
26	Brass Box and Cup (Fly Wheel Shaft).....	90
27	Brass Box and Cup (Fan Shaft).....	80
31	Large Loop (Fly Wheel Shaft).....	50
32	Small Loop (Fan Shaft).....	40
35	Handle	50
52	Fly Wheel.....	2 25
54	Lever Casting.....	1 50
59	Tuyere Cap.....	75
61	Ash Door.....	20
70	Clutch Hub.....	1 25
71	Clutch Lever.....	
72	Clutch Dog.....	
73	Clutch Piece.....	
80	Fan Pulley.....	30
99	Tuyere Ball.....	50
101	Hearth	5 00
103	Wheel Hanger	2 00
105	Lever Bracket.....	25
106	Fan Side (Pulley Side).....	2 25
107	Fan Side.....	2 25
108	Fan	1 25
110	Lever Rod.....	40
114	Handle Loop.....	30
115	Leg	30
116	Leg Ring.....	40

Long Belts, 75 cents. Pull Straps, 40 cents each.

Western Chief Forges

Sizes AA, BB, XBB and CC



New Style.



New Style.

118



New Style.

Repair List of Western Chief Forges

Sizes AA, BB, XBB and CC

When ordering, give Name of Forge and Number of Part Wanted.

No.	AA	
1	Hearth (not illust'd; state if for Round or Square Fire-pot)	\$12 50
—	Hood (not illustrated)	3 25
19	Water Tank (not illustrated)	3 25
8	Fire-pot (Old Style)	1 00
11	Goose Nest (Old Style)	1 50
16	Tuyere Ball	50
20	Ash Door	25
21	Ash Door	25
34	Leg (not illustrated)	30
38	Side Rod	35
39	Side Rod Support	25
711	Tuyere Ring	40
712	Ash Pot	1 25
1025	Square Fire-pot (New Style)	3 00

CC

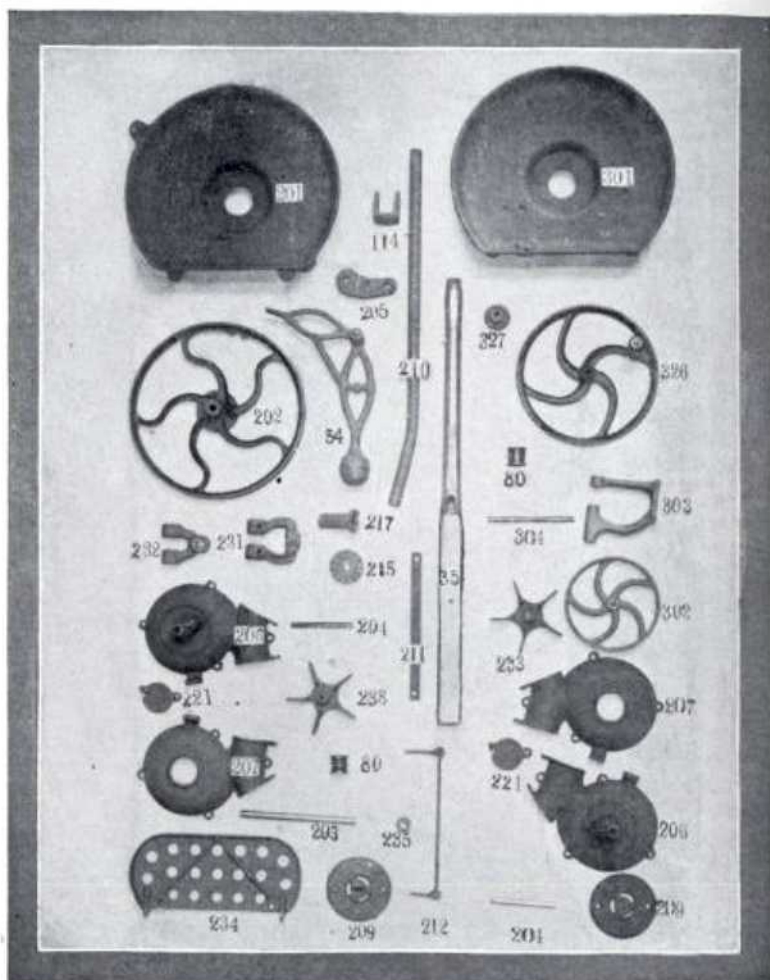
51	Hearth (not illustrated)	6 00
—	Hood (not illustrated)	3 00
10	Ball	10
20	Ash Door	25
21	Ash Door	25
34	Leg (not illustrated)	30
59	Tuyere Cap	75
66	Tuyere Ball	50
67	Pipe (not illustrated)	60
68	Duck Nest	1 75
77	Blast Gate, Right Side	50
78	Blast Gate, Left Side	60
711	Tuyere Ring	40
712	Ash Pot	1 25

BB AND XBB

9	Square Fire-pot (New Style)	4 00
601	Hearth, BB (not illust'd; say if for R'd or Square Fire-pot)	16 50
602	Hearth, XBB (not illust'd; state if for R'd or Sq. Fire-pot)	18 00
—	Hood (not illustrated)	3 25
619	Water Tank (not illustrated)	3 25
634	Leg (not illustrated)	1 50
16	Tuyere Ball	50
609	Tuyere Cap (for Old Style, Round Fire-pot)	1 50
612	Ash Pot	3 00
621	Ash Door	50
635	Divider	1 00
636	Tank Support	50
637	Blast Gate Side	75
642	Spring	35
643	Side Rod	35
644	Side Rod Support	25
645	Damper	1 00
646	Ash Door Rod	40

Hero Forges Nos. 6 and 7

Leader Forges Nos. 11, 12, 13 and 14



Repair List of Hero Forges Nos. 6 and 7 Leader Forges Nos. 11, 12, 13 and 14

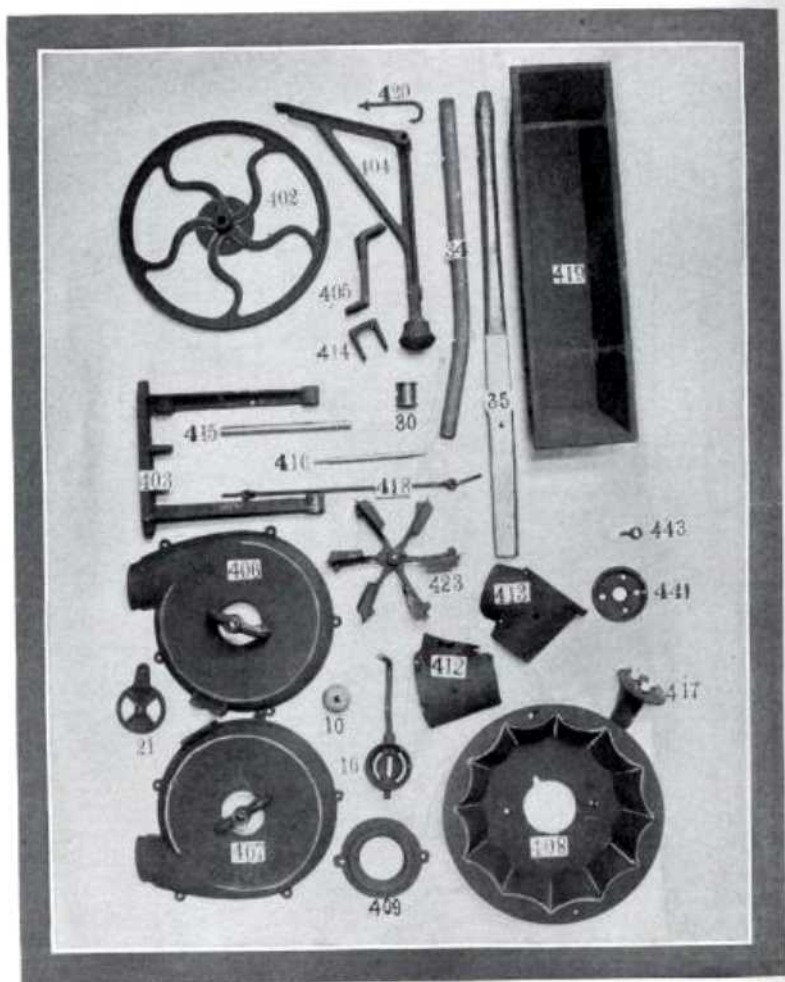
When ordering, give Name of Forge and Number of Part Wanted.

HERO FORGES, NOS. 6 AND 7	
No. —	Shield (No. 6 Forge), not illustrated.....\$ 0 60
—	Hood (No. 7 Forge), not illustrated..... 2 75
35	Handle 50
54	Lever Casting..... 1 50
70	Clutch Hub 1 25
71	Clutch Lever } These Form Clutch Complete. { 75
72	Clutch Dog } New Style Same as Shown { 15
73	Clutch Piece } on No. 4 Western Chief. { 10
80	Fan Pulley 30
114	Handle Loop 30
201	Hearth 4 75
202	Fly Wheel 2 00
203	Fly Wheel Shaft..... 40
204	Fan Shaft 30
205	Lever Bracket 25
206	Fan Side (Pulley Side)..... 2 25
207	Fan Side 2 25
209	Tuyere Cap 1 00
210	Leg 30
211	Leg Brace 10
212	Lever Rod 40
215	Clutch (Old Style)..... 60
217	Hub (Old Style)..... 60
221	Ash Door 20
231	Long Leg Bracket..... 60
232	Short Leg Bracket..... 50
233	Fan 60
234	Shelf 75
235	Washer 10

Long Belts, 60 cents. Pull Straps, 30 cents each.

LEADER FORGES, NOS. 11, 12, 13 AND 14.	
—	Shield (No 11 Forge), not illustrated.....\$ 0 60
—	Hood (No. 12 Forge), not illustrated..... 2 75
80	Fan Pulley 30
204	Fan Shaft 30
206	Fan Side (Pulley Side)..... 2 25
207	Fan Side 2 25
209	Tuyere Cap 1 00
210	Leg 30
221	Ash Door 20
233	Fan 60
301	Hearth 4 50
302	Fly Wheel 1 75
303	Wheel Hanger 1 00
304	Fly Wheel Shaft 40
326	Large Gear 1 50
327	Small Gear 30
	Leather Belt 35
	Legs (Nos. 13 and 14)..... 50
	Crank (not illustrated)..... 75

Challenge Forge No. 1c



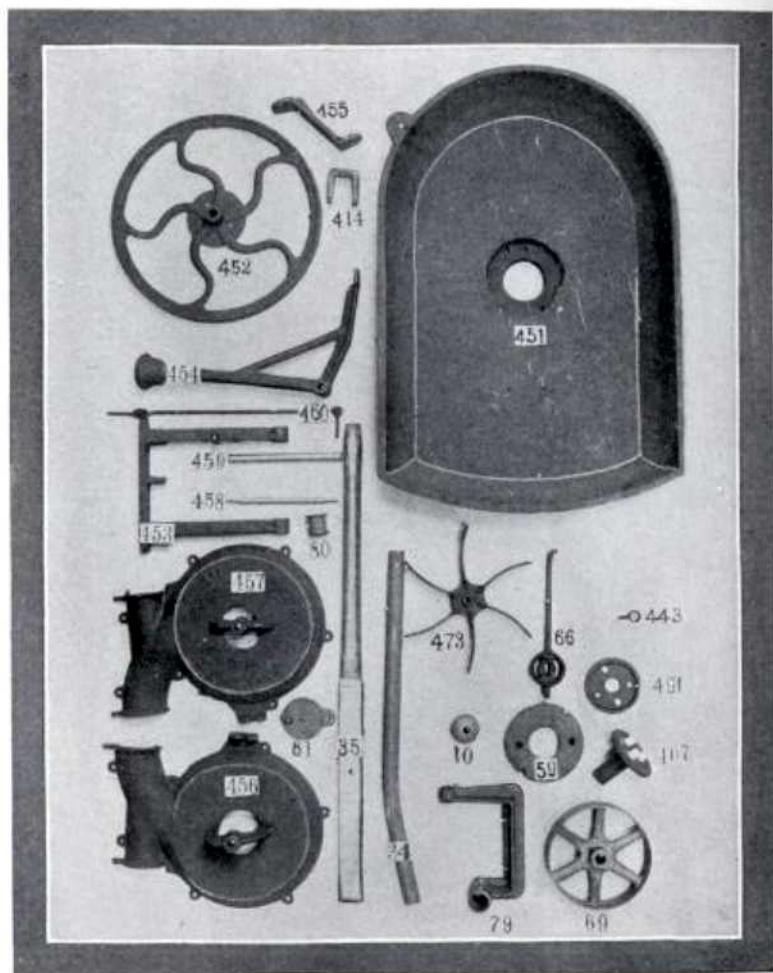
Repair List of Challenge Forge

No. 1c

When ordering, give Name of Forge and Number of Part Wanted.

No.	Name of Part.	Price.
—	Hood (not illustrated).....	\$ 3 25
10	Ball	10
16	Tuyere Ball	50
21	Ash Door	25
30	Fan Pulley	30
34	Leg	30
35	Handle	50
401	Hearth (not illustrated).....	11 50
402	Fly Wheel	2 00
403	Wheel Hanger	2 00
404	Lever Casting	1 60
405	Lever Bracket	35
406	Fan Side (Pulley Side).....	2 50
407	Fan Side	2 50
408	Fire-pot	2 00
409	Tuyere Cap	75
412	Ash Pot, Right.....	50
413	Ash Pot, Left.....	50
414	Handle Loop	30
415	Fly Wheel Shaft.....	40
416	Fan Shaft	50
417	Clutch Hub	1 25
418	Lever Rod	40
419	Water Tank	3 00
420	Wheel Hanger Brace.....	25
423	Fan	1 50
441	Clutch Ratchet	50
443	Clutch Dog	10

Challenge Forges Nos. 2c and 3c



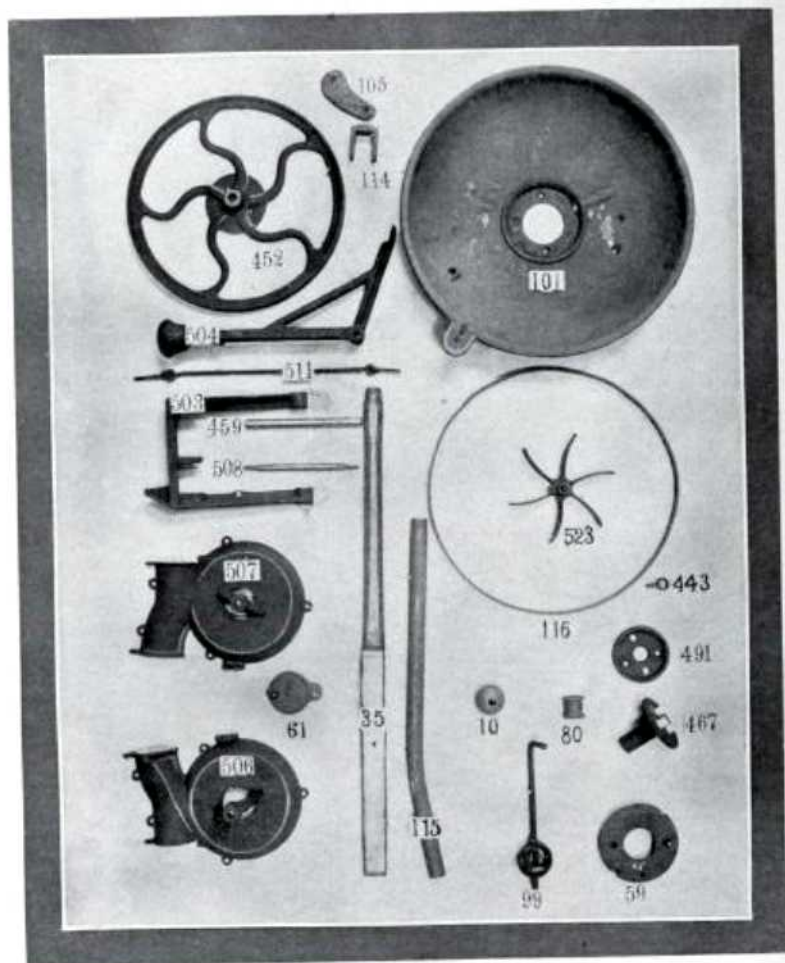
Repair List of Challenge Forges

Nos. 2c and 3c

When ordering, give Name of Forge and Number of Part Wanted.

No.	Name of Part.	Price.
—	Shield (No. 2 Forge), not illustrated.....	\$ 0 75
—	Hood (No. 3 Forge), not illustrated.....	3 00
10	Ball	10
34	Leg	30
35	Handle	50
59	Tuyere Cap	75
61	Ash Door	20
66	Tuyere Ball	50
69	Power Pulley	1 75
79	Shifter Bracket	90
80	Fan Pulley	30
414	Handle Loop	30
443	Clutch Dog	10
451	Hearth	6 00
452	Fly Wheel	2 00
453	Wheel Hanger	1 75
454	Lever Casting	1 50
455	Lever Brackets	35
456	Fan Side (Pulley Side).....	2 50
457	Fan Side	2 50
458	Fan Shaft	50
459	Fly Wheel Shaft.....	40
460	Lever Rod	40
467	Clutch Hub	1 25
473	Fan	1 00
491	Clutch Ratchet	50

Challenge Forges Nos. 4c, 5c and 5½c



Repair List of Challenge Forges

Nos. 4c, 5c and 5½c

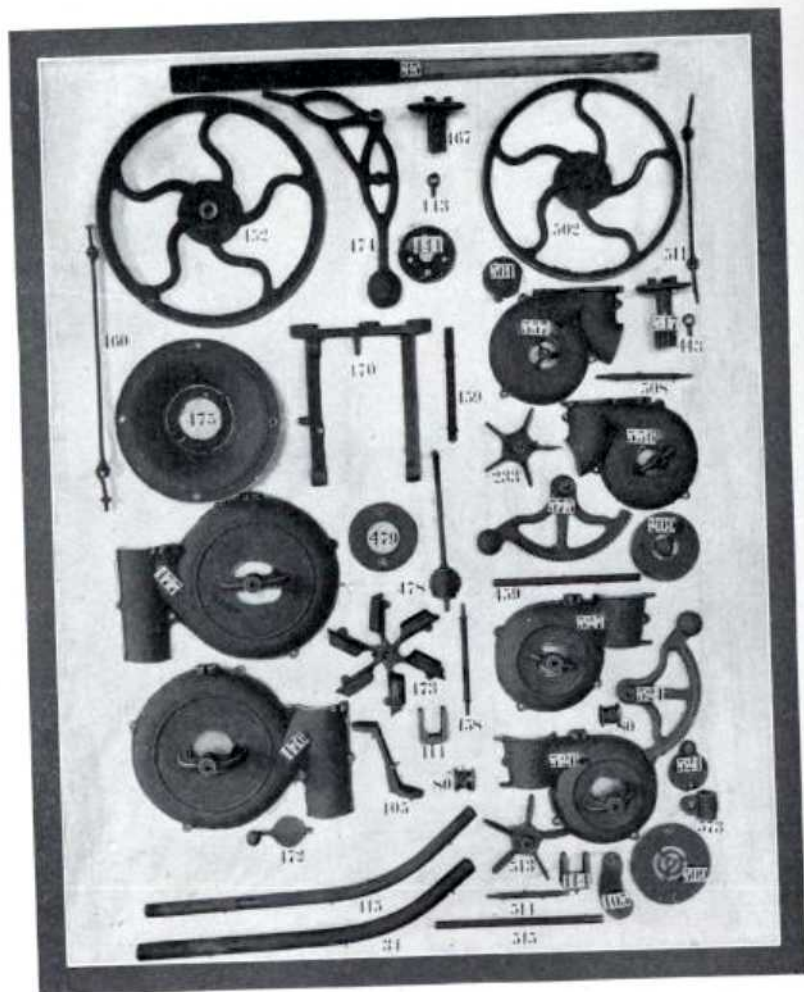
When ordering, give Name of Forge and Number of Part Wanted.

No.	Name of Part.	Price.
—	Shield (No. 4 Forge), not illustrated.....	\$ 0 60
—	Hood (No. 5 Forge), not illustrated.....	2 75
—	Hood (No. 5½ Forge), not illustrated.....	4 00
10	Ball	10
35	Handle	50
59	Tuyere Cap	75
61	Ash Door	20
80	Fan Pulley	30
99	Tuyere Ball	50
101	Hearth	5 00
105	Lever Bracket	25
114	Handle Loop	30
115	Leg	30
116	Leg Ring	40
443	Clutch Dog	10
452	Fly Wheel	2 00
459	Fly Wheel Shaft	40
467	Clutch Hub	1 25
491	Clutch Ratchet	50
503	Wheel Hanger	1 75
504	Lever Casting	1 50
506	Fan Side (Pulley Side).....	2 25
507	Fan Side	2 25
508	Fan Shaft	50
511	Lever Rod	40
523	Fan	90

Long Belts, 75 cents. Pull Straps, 40 cents each.

Chicago Forges

Nos. 150, 151, 152, 153, 154 and 155



Repair List of Chicago Forges Nos. 152 and 153

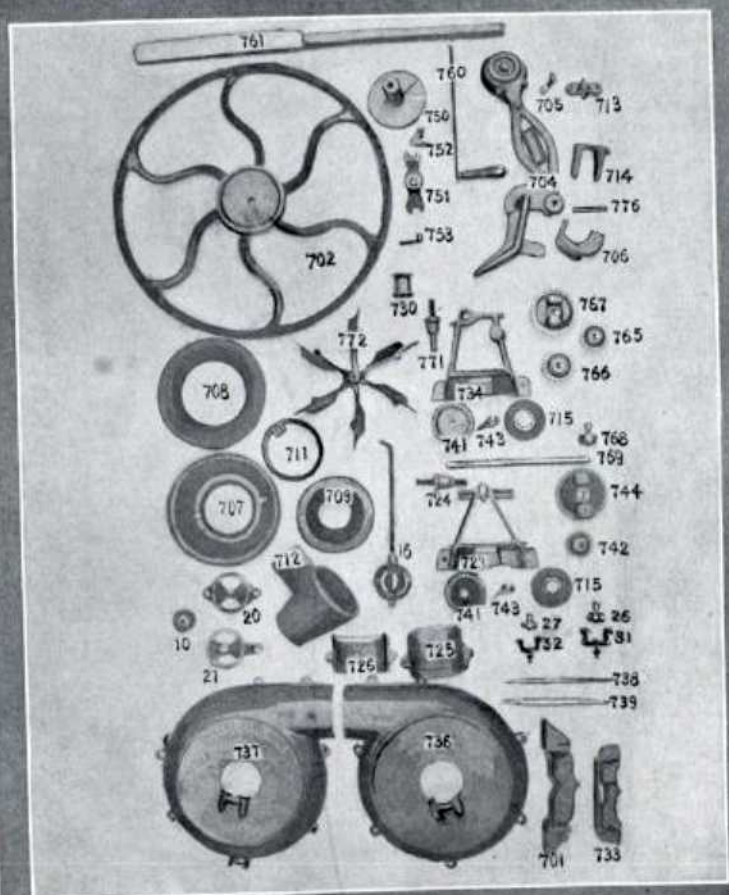
—	Shield (152 Forge; not illustrated).....	\$ 0 60
—	Hood (153 Forge; not illustrated).....	2 75
34	Leg	30
35	Wood Handle (Fits Nos. 150, 151, 152, 153, 154 & 155 Forges)	50
80	Fan Pulley (Fits Nos. 150, 151, 152, 153, 154 & 155 Forges) ..	30
114	Handle Loop	30
405	Lever Bracket	35
441	Clutch Ratchet	50
443	Clutch Dogs (Fits Nos. 150, 151, 152, 153, 154 & 155 Forges)	10
452	Fly Wheel	2 00
458	Fan Shaft	50
459	Fly-wheel Shaft	40
460	Lever Rod	40
467	Clutch Hub	1 25
470	Wheel Hanger	1 75
471	Hearth (not illustrated).....	6 00
472	Ash Door	20
473	Fan	1 00
474	Lever Casting	1 50
475	Fire-pot	1 50
476	Fan Side (Pulley Side).....	2 50
477	Fan Side	2 50
478	Tuyere Ball	40
479	Tuyere Cap	75

Nos. 150, 151, 154 and 155

—	Shield (not illust'd; for Forges 150 & 154; say which Forge)	\$0 30
—	Hood (not illust'd; for Forges 151 & 155; say which Forge)	2 50
105	Lever Bracket	35
114	Handle Loop	30
115	Leg	30
209	Tuyere Cap (Fits No. 150 and 151 only).....	50
233	Fan (Fits No. 150 and 151 only).....	60
459	Fly-wheel Shaft (Fits No. 150 and 151 only).....	40
501	Hearth (Not illustrated; fits 154 and 155 only).....	3 00
502	Fly-wheel	1 75
508	Fan Shaft (Fits 150 and 151 only).....	50
509	Tuyere Cap (Fits 154 and 155 only).....	60
511	Lever Rod	40
513	Fan (Fits 154 and 155 only).....	70
514	Fan Shaft (Fits 154 and 155 only).....	50
515	Fly Wheel Shaft (Fits 154 and 155 only).....	40
517	Clutch Hub and Gear.....	1 25
521	Ash Door (Fits 154 and 155 only).....	20
524	Segment Gear (Fits 154 and 155 only).....	1 25
526	Fan Side; pulley side (Fits 154 and 155 only).....	2 25
527	Fan Side (Fits 154 and 155 only).....	2 25
551	Hearth (Not illustrated; Fits 150 and 151 only).....	2 75
556	Fan Side; pulley side (Fits 150 and 151 only).....	2 25
557	Fan Side (Fits 150 and 151 only).....	2 25
561	Ash Door (Fits 150 and 151 only).....	20
573	Leg Bracket	30
575	Segment Gear (Fits 150 and 151 only).....	1 25

Western Chief Blowers

Sizes A, B and C



New

Old

Old Style Cast Gears and New Style Cut Gears are both shown, but are not interchangeable.
Order by **number** to avoid mistakes.

Repair List of Western Chief Blower

Sizes A, B and C

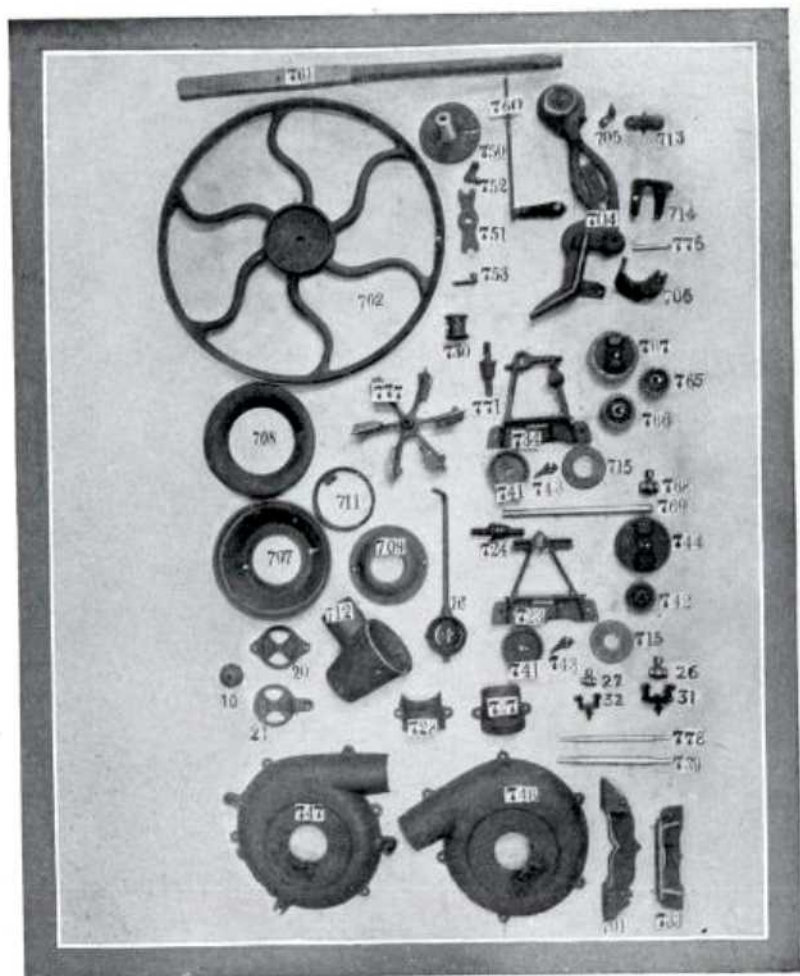
When ordering, give Name of Blower and Number of Part Wanted.

No.	Name of Part.	Price.
10	Ball	\$ 0 10
16	Tuyere Ball	50
20	Ash Door	25
21	Ash Door	25
26	Brass Box (Fly Wheel Shaft, Size B, only)	90
27	Brass Box (Fan Shaft, A, B and C)	80
31	Large Loop (Fly Wheel Shaft)	50
32	Small Loop (Fan Shaft)	40
701	Frame Foot	50
702	Fly Wheel	2 75
704	Lever Casting	2 75
705	Lever Catch	15
706	Lever Top	25
707	Fire-pot	1 00
708	Fire Ring	80
709	Tuyere Cap	75
711	Tuyere Ring	40
712	Ash Pot	1 25
713	Yoke Top	20
714	Yoke for Lever Casting	40
715	Crank Ratchet Plate	30
723	Crank Bracket (for old style Cast Gear)	70
724	Crank Gear Stud (old style)	35
725	Nose, Long Side	30
726	Nose, Short Side	25
730	Fan Pulley	30
733	Box Bracket	50
734	Crank Bracket (for new style Cut Gears)	70
736	Fan Side (Pulley Side)	2 75
737	Fan Side	2 75
738	Fan Shaft (for Sizes A, B or C)	50
739	Fly Wheel Shaft (for Size B only)	50
741	Ratchet	50
742	Small Gear (old style, cast)	50
743	Ratchet Dog	20
744	Large Gear (old style, cast)	1 00
750	Clutch Hub	1 25
751	Clutch Lever	75
752	Clutch Dog	15
753	Clutch Piece	10
760	Crank	50
761	Handle	50
765	Small Gear (new style, cut)	75
766	Medium Gear (new style, cut)	1 00
767	Large Gear (new style, cut)	1 75
768	Brass Box (Fly Wheel Shaft, Sizes A and C)	90
769	Fly Wheel Shaft (Sizes A and C)	65
771	Crank Gear Stud (new Gears, cut)	35
772	Fan	1 60
776	Lever Casting Shaft	10

Long Belts, \$1.25. Pull Straps, 40 cents each.

Western Chief Blowers

Sizes D, E and F



Old Style Cast Gears and New Style Cut Gears are both shown, but are not interchangeable.
Order by **number** to avoid mistakes.

New

Old

Repair List of Western Chief Blowers

Sizes D, E and F

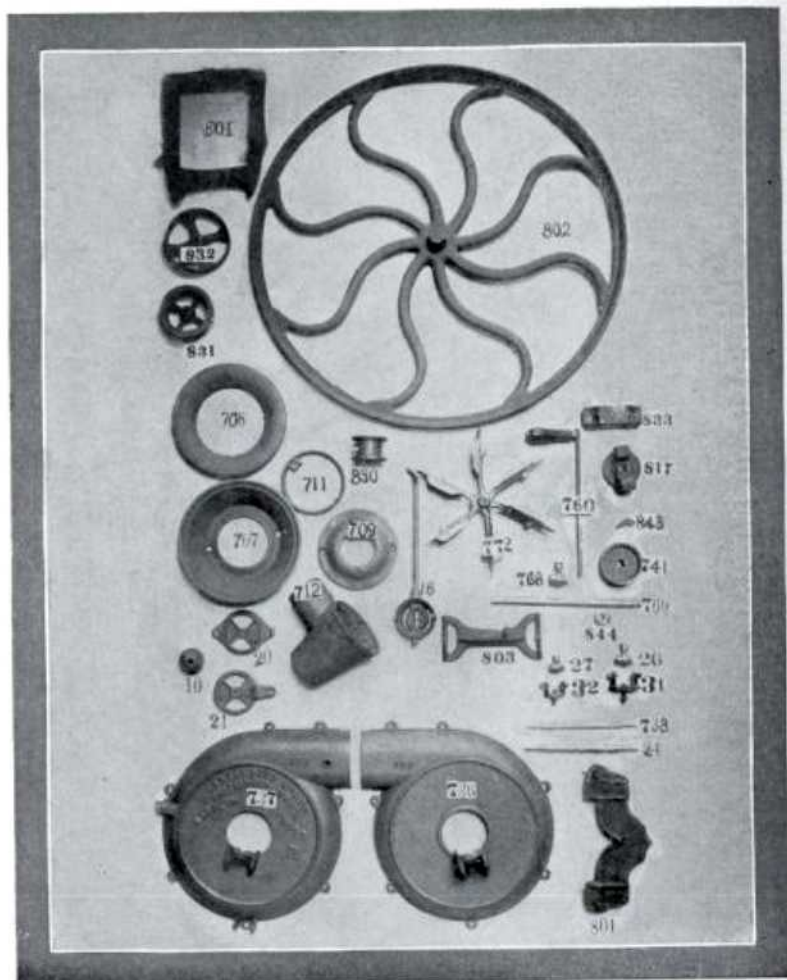
When ordering, give Name of Blower and Number of Part Wanted.

No.	Name of Part.	Price.
10	Ball	\$ 0 10
16	Tuyere Ball	50
20	Ash Door	25
21	Ash Door	25
26	Brass Box (Fly Wheel Shaft, Size E only).....	90
27	Brass Box (Fan Shaft D, E and F).....	80
31	Large Loop (Fly Wheel Shaft).....	50
32	Small Loop (Fan Shaft).....	40
701	Frame Foot	50
702	Fly Wheel	2 75
704	Lever Casting	2 75
705	Lever Catch	15
706	Lever Top	25
707	Fire-pot	1 00
708	Fire Ring	80
709	Tuyere Cap	75
711	Tuyere Ring	40
712	Ash Pot	1 25
713	Yoke Top	20
714	Yoke for Lever Casting.....	40
715	Crank Ratchet Plate.....	30
723	Crank Bracket (for old style Cast Gears).....	70
724	Crank Gear Stud (old style).....	35
727	Nose, Long Side.....	30
728	Nose, Short Side.....	25
730	Fan Pulley	30
733	Box Bracket	50
734	Crank Bracket (new style, for Cut Gears).....	70
739	Fly Wheel Shaft (for Size E only).....	50
741	Ratchet	50
742	Small Gear (old style, cast).....	50
743	Ratchet Dog	20
744	Large Gear (old style, cast).....	1 00
746	Fan Side (Pulley Side).....	2 50
747	Fan Side	2 50
750	Clutch Hub	1 25
751	Clutch Lever	75
752	Clutch Dog	15
753	Clutch Piece	10
760	Crank	50
761	Handle	50
765	Small Gear (new style, cut).....	75
766	Medium Gear (new style, cut).....	1 00
767	Large Gear (new style, cut).....	1 75
768	Brass Box (Fly Wheel Shaft D and F).....	90
769	Fly Wheel Shaft (Sizes D and F).....	65
771	Crank Gear Stud (new Gears, cut).....	35
776	Lever Casting Shaft.....	10
777	Fan	1 50
778	Fan Shaft (Sizes D, E or F)	50

Long Belts, \$1.25. Pull Straps, 40 cents each.

Western Chief Blower

Size G



Repair List of Western Chief Blower Size G

When ordering, give Name of Blower and Number of Part Wanted.

No.	Name of Part.	Price.
10	Ball	\$ 0 10
16	Tuyere Ball	50
20	Ash Door	25
21	Ash Door	25
24	Countershaft	50
26	Brass Box for Countershaft	90
27	Brass Box for Fan Shaft	80
31	Loop for Fly Wheel and Countershaft	50
32	Loop for Fan Shaft	40
707	Fire-pot	1 00
708	Fire Ring	80
709	Tuyere Cap	75
711	Tuyere Ring	40
712	Ash Pot	1 25
736	Fan Side (Pulley Side)	2 75
737	Fan Side	2 75
738	Fan Shaft	50
741	Ratchet	50
760	Crank	50
768	Brass Box for Fly Wheel Shaft	90
769	Fly Wheel Shaft	65
772	Fan	1 60
801	Frame Foot	50
802	Fly Wheel	3 00
803	Frame Bracket	50
804	Countershaft Bracket	1 00
817	Crank Hub	40
830	Fan Pulley	30
831	Flange Pulley	75
832	Large Pulley	80
833	Square Box	40
843	Ratchet Dog	20
844	Steel Collar	10

Long Belts, \$1.50. Short Belts, 60 cents.

Repair List of Drill No. 0½

No.	Name of Part.	Price.
1	Frame	\$ 2 50
5	Table	50
6	Table Rest	75
9	Mandrel	1 80
11	Feed Nut	60
12	Foot	30
14	Hexagon Nut	30
16	Large Crank Gear.....	1 00
17	Small Bevel Gear.....	50
20	Feed Wheel	75
27	Feed Screw	50
37	Table Rest Shaft.....	1 25
42	Crank	50
46	Stud for No. 16 Gear.....	40
49	Screw and Nut for Table.....	10
50	Fiber Washer	05

Repair List of Drill No. 0

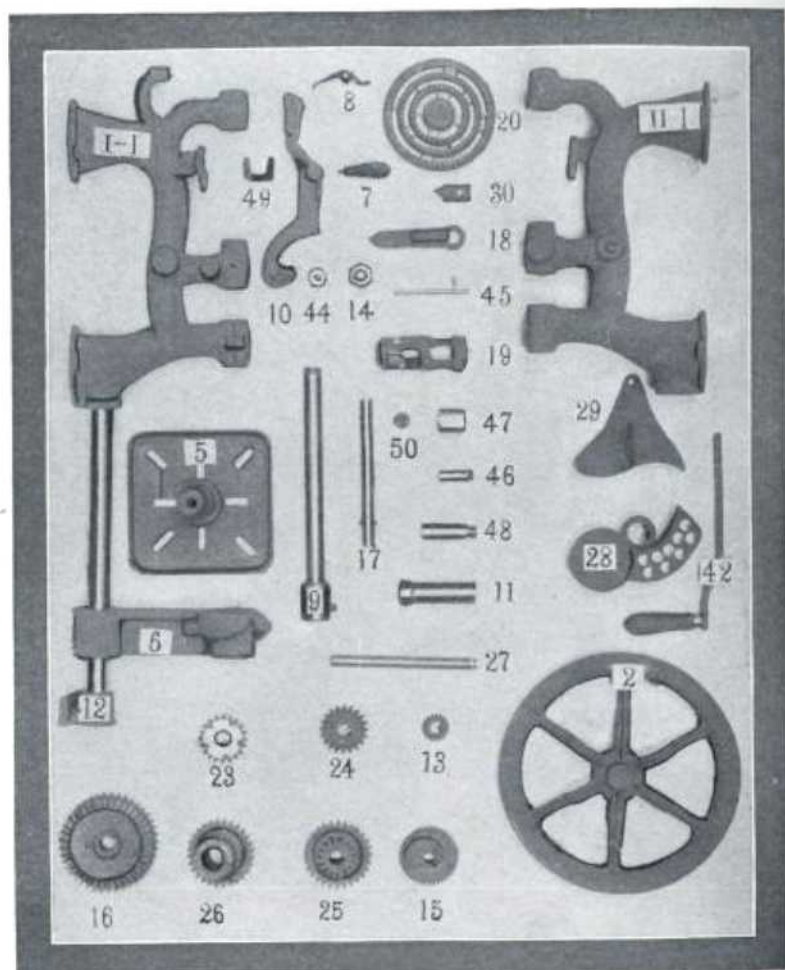
No.	Name of Part.	Price.
1	Frame	\$ 2 50
2	Fly Wheel	1 50
5	Table	50
6	Table Rest	75
7	Feed Wheel Handle.....	10
8	Feed Arm Dog.....	10
9	Mandrel	1 80
10	Feed Arm	70
11	Feed Nut	60
12	Foot	30
13	Small Gear and Fly Wheel Shaft.....	80
14	Hexagon Nut	30
16	Large Crank Gear.....	1 25
17	Small Bevel Gear.....	50
20	Feed Wheel	75
27	Feed Screw	50
37	Table Rest Shaft.....	1 25
42	Crank	50
46	Stud for No. 16 Gear.....	40
49	Screw and Nut for Table.....	10
50	Fiber Washer	05

Repair List of Drill No. 00

No.	Name of Part.	Price.
1	Frame	\$ 3 00
2	Fly Wheel	1 50
4	Feed Arm Spring	10
5	Table	1 60
6	Table Rest	1 00
7	Feed Wheel Handle	10
8	Feed Arm Dog	10
9	Mandrel (state if $\frac{1}{2}$ or 41-64 inch)	1 80
10	Feed Arm	75
11	Feed Nut	60
12	Foot	30
13	Small Gear and Fly Wheel Shaft	80
14	Hexagon Nut	30
16	Large Bevel Gear	1 50
17	Small Bevel Gear	50
20	Feed Wheel	75
27	Feed Screw	50
31	Crank Hub	80
42	Crank	50
46	Stud for No. 16 Gear	40
49	Screw and Nut for Table	10
50	Fiber Washer	05

Western Chief Drills

Nos. 1 and 2



Repair List of Western Chief Drills

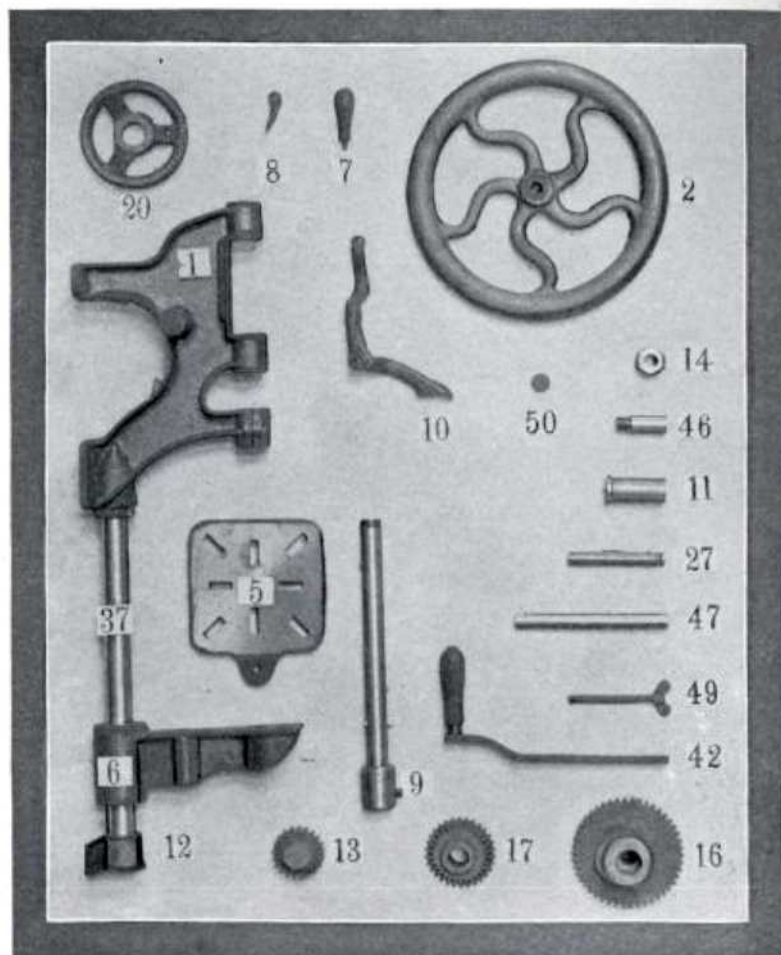
Nos. 1 and 2

When ordering, give Name of Drill and Number of Part Wanted.

No.	Name of Part.	Price.
I—1	Frame (No. 1 Drill).....	\$ 6 00
II—1	Frame (No. 2 Drill).....	6 00
2	Fly Wheel	2 00
5	Table	2 50
6	Table Rest	1 25
—	Table Rest Shaft (not numbered).....	1 50
7	Feed Wheel Handle	20
8	Feed Rod Dog.....	10
9	Mandrel (bored $\frac{1}{2}$ or $\frac{1}{4}$ inch).....	1 80
10	Feed Arm	75
11	Feed Nut	80
12	Foot	40
13	Small Feed Gear.....	30
14	Brass Nut	50
15	Large Feed Gear.....	80
16	Large Bevel Gear.....	1 75
17	Fly Wheel Shaft.....	50
18	Arm Stop	30
19	Return Yoke	75
20	Feed Wheel	1 00
23	Top Gear (Bevel).....	50
24	Bottom Gear (Bevel).....	50
25	Double Gear	1 00
26	Crank Gear	1 25
27	Feed Screw	50
28	Drill Holder (No. 2 Drill).....	50
29	Shield (No. 2 Drill).....	30
30	Feed Screw Stop (No. 2 Drill).....	10
42	Crank	50
44	Feed Arm Roller.....	20
45	Return Trip	20
46	Stud for No. 15 Feed Gear.....	30
47	Sleeve for No. 26 Crank Gear.....	60
48	Stud for Sleeve No. 47.....	40
49	Loop for Feed Arm.....	20
50	Fiber Washer	05

Western Chief Drill

No. 3



Repair List of Western Chief Drill No. 3

When ordering, give Name of Drill and Number of Part Wanted.

No.	Name of Part.	Price.
1	Frame	\$ 3 00
2	Fly Wheel	1 50
5	Table	1 60
6	Table Rest	1 00
7	Feed Wheel Handle.....	20
8	Feed Arm Dog.....	10
9	Mandrel (bored $\frac{1}{2}$ or 41-64 inch).....	1 80
10	Feed Arm	80
11	Feed Nut	60
12	Foot	30
13	Small Gear	50
14	Brass Nut	50
16	Large Bevel Gear.....	1 50
17	Small Bevel Gear.....	50
20	Feed Wheel	75
27	Feed Screw	50
37	Table Rest Shaft.....	1 25
42	Crank	50
46	Stud for No. 16 Bevel Gear.....	40
47	Fly Wheel Shaft.....	30
49	Screw and Nut for Table.....	10
50	Fiber Washer	05

Repair List of Western Chief Drills

Nos. 4 and 15

NO. 4 DRILL

When ordering, give Name of Drill and Number of Part Wanted.

No.	Name of Part.	Price.
1	Frame	\$ 6 50
3	Fly Wheel (Top).....	2 25
4	Fly Wheel (Side).....	2 00
5	Table	2 50
6	Table Rest	1 40
8	Feed Arm Dog.....	10
9	Mandrel (bored $\frac{1}{2}$ or 41-64 inch).....	2 10
10	Feed Arm	75
11	Feed Nut	1 25
12	Foot	40
16	Large Bevel Gear.....	1 75
17	Small Bevel Gear.....	50
20	Feed Wheel	1 25
25	Small Gear { To Make }	2 25
26	Large Gear { Double Gear. }	
30	Iron Washer	05
31	Crank Hub	60
32	Flat Gear	75
34	Eccentric Bevel Gear.....	80
37	Table Rest Shaft.....	1 80
40	Table Clamp	10
42	Crank	50
46	Stud for No. 20 Feed Wheel.....	30
47	Stud for Double Gears Nos. 25 and 26.....	50
48	Stud for No. 16 Large Bevel Gear.....	60
49	Fiber Washer, top of Feed Nut.....	05
50	Fiber Washer, bottom of Feed Nut.....	05

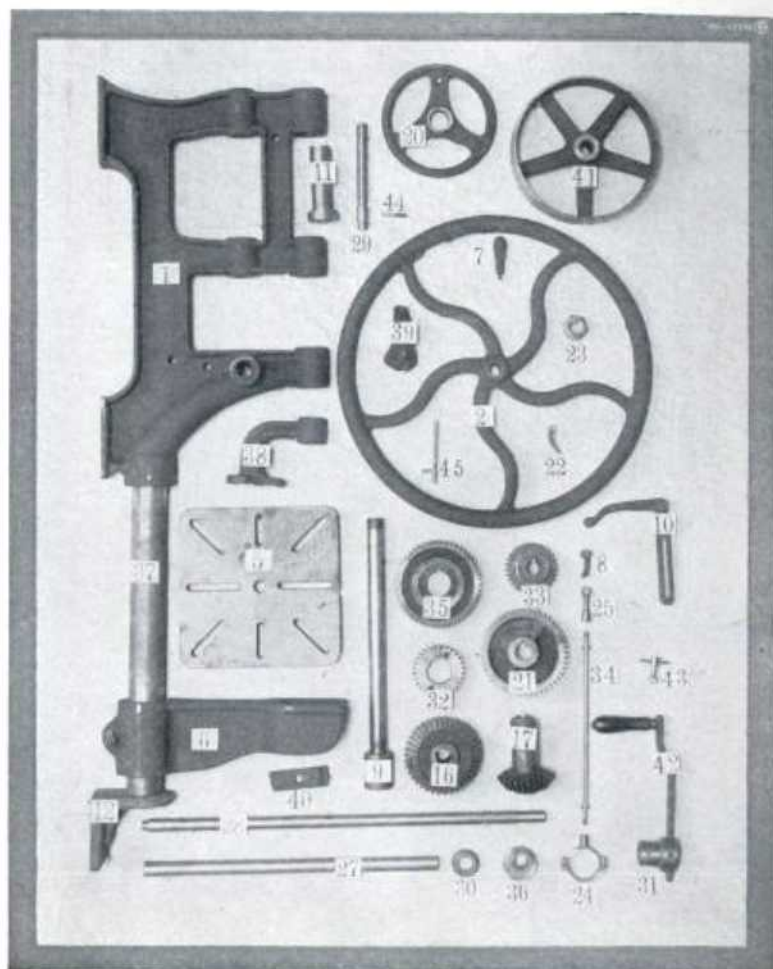
NO. 15 DRILL

~~Many~~ Many of the No. 4 Drill Repairs will fit No. 15 Drill. Those listed below are *exclusively* for No. 15 Drill, and therefore care should be observed in ordering to be sure to state whether wanted for old No. 4 Drill or the new improved No. 15 Drill. Parts *not* mentioned below are same as for No. 4, and will be found under No. 4 list above.

No.	Name of Part.	Price.
1	Frame	\$ 6 50
3	Fly Wheel (Side).....	2 25
9	Mandrel (bored $\frac{1}{2}$ or 41-64 inch).....	2 10
10	Feed Arm	75
11	Feed Nut	1 25
16	Large Bevel Gear (cut).....	2 50
20	Feed Wheel	1 25
25	Small Gear (cut). { To Make }	3 00
26	Large Gear (cut). { Double Gear. }	
31	Crank Hub	60
32	Flat Gear (cut).....	1 25
—	Shaft for Double Gear and Fly Wheel.....	1 00

Western Chief Drills

Nos. 7 and 12



Repair List of Western Chief Drills

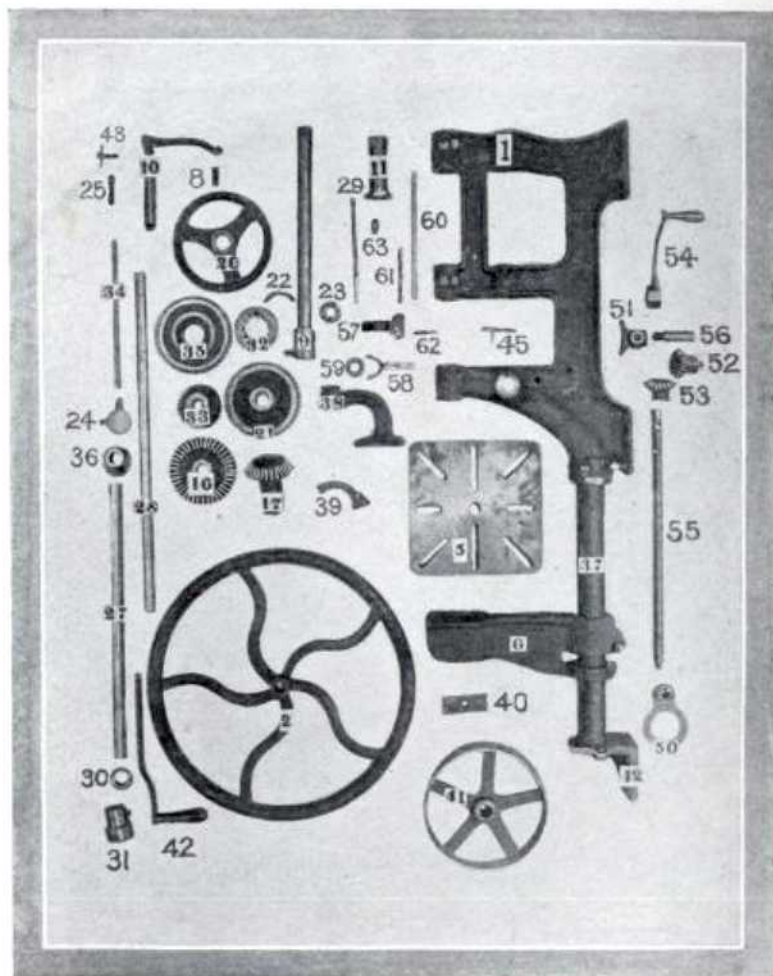
Nos. 7 and 12

When ordering, give Name of Part Wanted, and State PARTICULARLY Whether
for No. 7 or No. 12 Drill.

No.	Name of Part.	Price.
1	Frame	\$ 8 00
2	Fly Wheel	2 25
5	Table	3 00
6	Table Rest	2 00
7	Feed Wheel Handle.....	15
8	Feed Arm Dog.....	10
9	Mandrel (bored $\frac{1}{2}$ or 41-64 inch).....	2 50
10	Feed Arm	60
11	Feed Nut	90
12	Foot	50
16	Large Bevel Gear.....	2 50
17	Small Bevel Gear.....	2 00
20	Feed Wheel	60
21	Large Gear with Hub.....	2 25
22	Latch, to change Gear.....	50
23	Brass Nut	50
24	Brass Eccentric Strap.....	65
25	Brass Pitman Head.....	50
27	Pulley and Crank Shaft.....	90
28	Fly Wheel and Gear Shaft.....	1 00
29	Feed Screw	1 00
30	Washer, cast for Pulley Shaft.....	20
31	Crank Hub	1 50
32	Small Flat Gear (always furnished with No. 35 Gear)....	1 40
33	Small Hub Gear.....	1 50
34	Pitman Rod	20
35	Large Straight Gear (always furnished with No. 32 Gear)...	2 00
36	Eccentric	60
37	Table Rest Shaft.....	2 25
38	Large Bracket	60
39	Small Bracket	50
40	Table Clamp	20
41	Pulley for Power.....	2 00
42	Crank	50
43	Eccentric Bolt	30
44	Screw, for Feed Screw.....	10

Western Chief Drill

No. 14



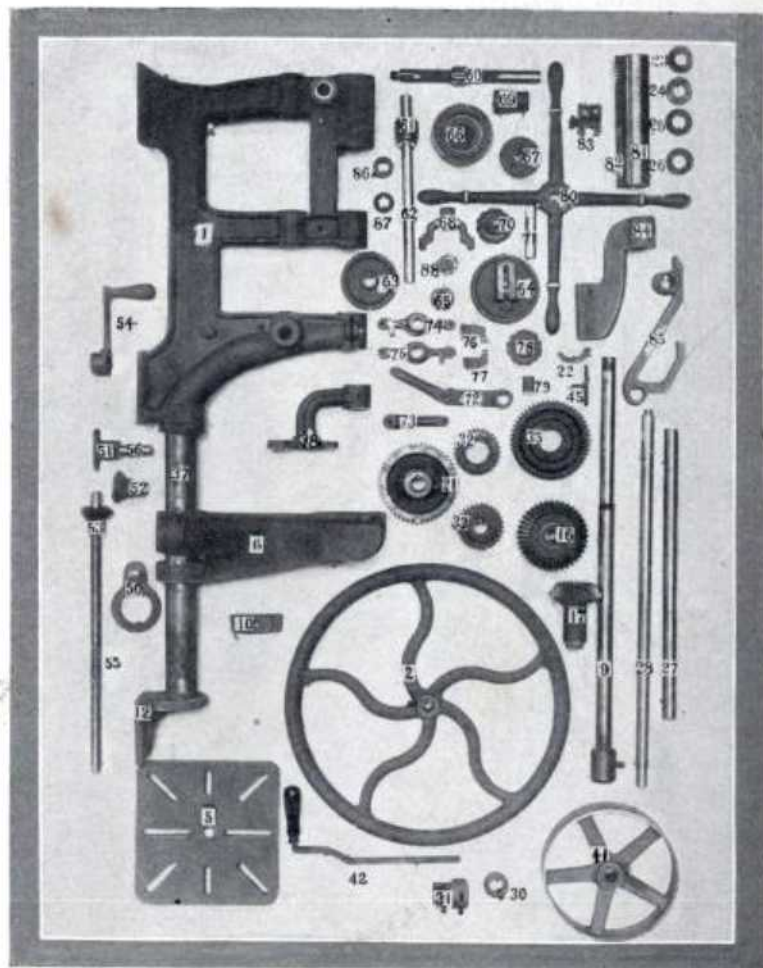
New Style.

No. Repair List of Western Chief Drill No. 14

1	Frame	\$ 8 50
2	Fly Wheel	2 25
5	Table	3 00
6	Table Rest	2 00
8	Feed Arm Dog	10
9	Mandrel (bored $\frac{1}{2}$ or 41-64 inch)	2 50
10	Feed Arm	60
11	Feed Nut	90
12	Foot	50
16	Large Bevel Gear	2 50
17	Small Bevel Gear	2 00
20	Feed Wheel	60
21	Large Gear with Hub	2 25
22	Latch to Change Gear	50
23	Brass Nut	50
24	Brass Eccentric Strap	65
25	Brass Pitman Head	50
27	Pulley and Crank Shaft	90
28	Fly Wheel and Gear Shaft	1 00
29	Feed Screw	1 00
30	Washer, Cast for Pulley Shaft	20
31	Crank Hub	1 50
32	Small Flat Gear (Always Furnished with No. 35 Gear)	1 40
33	Small Hub Gear	1 50
34	Pitman Rod	20
35	Large Straight Gear (Always Furnished with No. 32 Gear)	2 00
36	Eccentric	60
37	Table Rest Shaft	2 25
38	Large Bracket	60
39	Small Bracket	50
40	Table Clamp	20
41	Pulley for Power	2 00
42	Crank	50
43	Eccentric Bolt	30
45	Trip for Gear Latch	20
50	Table Rest Screw Nut	70
51	Screw Bearing	40
52	Raise and Lower Crank Pinion	50
53	Raise and Lower Top Pinion	50
54	Raise and Lower Crank	60
55	Raise and Lower Screw	1 00
56	Stud	25
57	Feed Yoke	1 00
58	Return Lever	90
59	Return Lever Collar	80
60	Stop Shaft	20
61	Feed Yoke Plunger	40
62	Catch with Spring to No. 61 Plunger	20
63	Upper and Lower Stops	30
70	Large Feed Gear (New Style)	60
71	Small Feed Gear (New Style)	30
72	Ratchet Feed Gear (New Style)	70
73	Long Feed Arm (New Style)	60
74	Cross Feed Arm (New Style)	40
75	Feed Dog (New Style)	10
76	Bushing for No. 73 Feed Arm (New Style)	30
77	Lock-nut for No. 73 Feed Arm (New Style)	10

Western Chief Drills

Nos. 16 and 17



000198
08
0021

Repair List of Drills Nos. 16 and 17.

No.	Name of Part.	Price.
1	Frame	\$10 00
2	Fly Wheel.....	2 50
5	Table	3 00
6	Table Rest	2 50
9	Mandrel (Bored $\frac{1}{2}$ or $\frac{3}{4}$ inch)	4 00
10	Table Clamp.....	20
12	Foot	50
16	Large Bevel Gear	2 50
17	Small Bevel Gear	2 00
21	Large Gear with Hub	2 25
22	Latch to Change Gear	50
23	Upper Lock-nut for Mandrel	40
24	Upper Adjusting Nut for Mandrel	40
25	Upper Fiber Washer for Mandrel	10
26	Lower Beating Nut for Mandrel	40
27	Pulley and Crank Shaft	90
28	Fly Wheel and Gear Shaft	1 00
30	Collar for Pulley Shaft	20
31	Crank Hub	1 50
32	Small Flat Gear (Furnished with No. 35 Gear)	1 40
33	Small Hub Gear	1 50
35	Large Straight Gear (Furnished with No. 32 Gear)	2 00
37	Table Rest Shaft	2 25
38	Large Bracket	60
41	Pulley for Power	2 00
42	Crank	50
45	Trip for Gear Latch	20
50	Table Rest Screw Nut	70
51	Screw Bearing (51, 52 and 56 always assembled)	40
52	Raise and Lower Crank Pinion	50
53	Raise and Lower Top Pinion	50
54	Raise and Lower Crank	60
55	Raise and Lower Screw	1 00
56	Stud	25
60	Lever and Feed Gear Shaft, with Gear	1 50
61	Worm Feed Gear	80
62	Worm Feed Gear Shaft	50
63	Ratchet Feed Gear	60
64	Large Feed Gear	60
65	Small Feed Gear	30
66	Large Spiral Feed Gear	1 00
67	Clutch Hub for Spiral Feed Gear	30
68	Clutch Bracket	30
69	Sleeve for No. 60 Shaft	30
70	Clutch Hand Wheel	25
71	Large Feed Gear Shaft	25
72	Long Feed Arm	60
73	Short Feed Arm	30
74	Upper Cross Feed Arm	30
75	Lower Cross Feed Arm	30
76	Upper Feed Dog	10
77	Lower Feed Dog	10
78	Hand Wheel, Lock-nut for Feed Arm	20
79	Bushing for Long Feed Arm	30
80	Hand, Feed Lever	1 50
81	Feed Sleeve	1 50
82	Feed Sleeve Rack	60
83	Brass Clamp for Feed Sleeve Rack	80
84	Upper Bracket for Feed Bearing	1 00
85	Lower Bracket for Feed Bearing	1 00
86	Collar for Feed Gear Shaft	20
87	Fiber Washer for Feed Gear Shaft	10
88	Clutch Screw, Bearing	15
—	Iron Column and Base, No. 17 Drill	15 70

THE SMITH

THE SOVEREIGN OF ALL ARTISANS



IN the year B. C. 1005, Solomon, King of Israel, spake unto his servants and saith, "Now that the Temple is finished, let us declare praise unto him who deserveth praise," and he bade them each speak of the works he hath done.

And Hiram of Tyre, a worker in brass, spoke of the images he had wrought for the mighty Temple by his talent, *aided by the tools of steel that were made by the Smith.*

And Abinadab, a carver of cedar and kindred woods, declared aloud his praise of the *Ironsmith, who created the tools for his handiwork.*

And Geber, a hewer of stone, and Baana, who wrought wonders in iron, and each of the mighty throng of builders, who gathered around the wise King, all admitted that *without the Smith who made their tools* whereby they carved the precious stones, hewed the marble slabs, and wrought in hammered brass and gold the cherub images for the lordly temple, they would have been helpless and without power.

Then spoke King Solomon, "Bring forth the Smith! Command him into my presence, that he may hear of all this." And straightway cometh from among the artisans a bearded Vulcan of the forge, brawny in face and arms, and with sinews of iron, much amazed with wonder at his presence before the high King of Israel.

"Didst thou, humble worker of iron, create within thy grizzled brain, and didst thou shape with thy cunning hands, the tools of Hiram, of Abinadab, of Geber, that they might please me with their handiwork? Didst thou fashion the chisel of steel that chipped the marble pillars of the great palace? And didst thou forge from flaming iron those tools so cunningly devised, that the worker might carve the cedar of Lebanon?"

"Yea, verily, most gracious King, hath I done all this, but all for praise of thee, and of thy Temple."

"Fear not, I beseech thee, though thou art but an humble Smith. To thee belongs the honor, to thee belongs the praise, and to thee a seat within the temple and upon the throne, for thou hast fashioned by the cunning of thy brain and strength of arm the tools of all those who did build my temple, and I will create thee greater than all these, for thou art the foundation of all." And thereupon the King declared throughout all Israel *"that iron was king"* and the humble Smith *"the Sovereign of all Artisans."*

